DOCUMENT RESUME

ED 033 437 EA 002 492

AUTHOR	Benson, Charles S.; Guthrie, James W.
TITLE	An Essay on Federal Incentives and Local and State Educational Initiative. A Search for New Energy: ESEA Title III.
INSTITUTION	George Washington Univ., Washington, D.C.
Spons Agency	Office of Education (DHEW), Washington, D.C. Bureau of Elementary and Secondary Education.
Report No	ESEA-Title-3
Pub Date	Dec 68
Note	70p.
EDRS Price	EDRS Price MF-$0.50 HC-$3.60
Descriptors	Community Involvement, Curriculum Enrichment, Educational Change, *Educational Improvement, Educational Innovation, Educational Planning, *Federal Programs, *Federal State Relationship, Gifted, Incentive Grants, Individualized Instruction, Preschool Programs, *Program Evaluation, Racial Integration, Vocational Education
Identifiers	*ESEA Title 3

Abstract

This study, funded by ESEA Title III, has concerned itself with that program's ability to encourage local school authorities to accomplish needed educational reforms and to consider implications for future program activities. Suggestions are included for those concerned with the administration of Title III at the State level. The information upon which this report is based was obtained as a result of visits to 60 projects located in 30 States. At each project, visits with key project persons were structured by a questionnaire composed of open-ended inquiries. In addition, the perceptions of school board members and other community spokesmen were solicited. Title III projects were found to be particularly effective in encouraging (1) new instructional modes and curricula formats, (2) new educational technology, (3) systematic resource allocation, (4) cooperation and resource sharing among local school districts, (5) establishment of special education programs, and (6) incentives to persons with extraordinary talents. (Author/MF)

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A Search for New Energy: ESEA Title III

An Essay on Federal Incentives and Local and State Educational Initiative

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EA 002 492

This project was funded by the U.S. Office of Education through an agreement with The George Washington University, Washington, D. C., as fiscal agent.

DECEMBER 1968

Acknowledgements

We should like to express our sincere appreciation to the hundreds of local educators, citizens, and students who gave of their time in order to tell us about their Title III projects. In almost every instance we found these people to be proud of their project's successes, candid of its shortcomings, and dedicated to its improvement. It is their expertise, idealism, and above all their energy, which provided the subject and theme for this report. We hope our accuracy and relevance are consistent with the high quality of their efforts.

Also, we are most grateful to our rather remarkable team of observers: Sheldon Bloom, James Cleaveland, Joseph Drew, Allan Freedman, William Harrison, Samuel Husk, William Jacobs, Robert Jones, Shirley Kaufmann, John Lindia, Gerhard Mally, Peter Mott, Tim Parsons, Sharlene Pearlman, Beatrice Pressley, Jack Schuster, Marvin Sondalle, Edward Sullivan, James Wallington, and Arthur Wood. This group comprises the 1967-68 Washington Interns in Education, a Ford Foundation sponsored program under the able direction of Dr. Donald P. Mitchell. We wish to acknowledge particularly the assistance of Dr. Mitchell and Shirley Kaufmann for the efforts they exerted in coordinating the many arrangements necessary for 20 persons to make 60 visits to 30 states. We are also indebted to Paul Cawein for his grace and good humor in performing the rather thankless task of interpreting the authors to the U. S. Office of Education and vice versa.

Further, we wish to make clear our appreciation for the cooperation of numerous Office of Education personnel who were selfless in their willingness to provide information, expedite our efforts, and criticize constructively our results. Dr. Karl Hereford of the Bureau of Elementary and Secondary Education was particularly helpful in the last-mentioned capacity.

Also, we are indebted to the data processing and analytical skills of Marvin Lamoureaux and Charles Hansen and the administrative assistance and secretarial excellence of Linda Dillon, Ann Eliel, Anne Hawley, and Kazuko Nishita.

Where the reader is struck by the report's accurate content and appropriate recommendations, the responsibility rests primarily upon the shoulders of the persons and groups listed above. Conversely, in those instances where the reader finds ideas, phrases, and words for which he feels better alternatives exist, the blame falls squarely upon our shoulders.

Berkeley, 1968

CHARLES S. BENSON
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CHAPTER I

The Nature of The Task

On July 1, 1968, major administrative authority for Title III of the Elementary and Secondary Education Act was transferred from the U.S. Office of Education to state education agencies. This transfer provided an appropriate point at which to study Title III supported projects to date and to consider implications for future program activities.

In pursuing this study, we posed for ourselves two questions: first, "In what educational contexts has Title III already demonstrated effectiveness?" and second, "How might the benefits of Title III be expanded in the areas of needed change in American education?" In exploring these questions, we also attempted to glean some practical wisdom regarding ingredients to be encouraged and snares and pitfalls to be avoided in the planning and operation of Title III projects. In this presentation of the results of our study, we have taken the liberty of including some suggestions for those now concerned with the administration of Title III at the state level. In summary then, this report is intended as a kind of "investors guide" for those who shall carry on the important responsibility of administering and operating Title III.

A Word about "Procedures"

The primary information upon which this report is based was obtained as a result of visits to sixty Title III projects located throughout the United States. The projects were selected by staff members in the U.S. Office of Education who were familiar in a general way with the Title III "universe." Projects were separated into two groups: (1) those which appeared at a distance and on paper to be "successful," and (2) those which when judged from the same subjective standpoint were rated substantially less favorably. It was planned that roughly two-thirds of the projects to be visited would be selected from a group of projects thought to be successful and the other one-third would be from those judged to be somewhat lacking. The study team was never informed as to whether or not the projects they visited were viewed favorably or unfavorably by those making the initial selection. In fact, observers were instructed to make this judgment for themselves only after having visited the projects and viewing and analyzing as many relevant facets as possible in the time period allotted. The selected projects were located in 30 states and the District of Columbia.

Following the selection process, arrangements were made for a trained educational observer to visit each project. After a period of instruction, observers were provided with a copy of the project's proposal to the U.S. Office of Education. Visits were structured by a questionnaire composed of open-ended inquiries. The survey instrument contained thirty-eight questions which were purposely phrased in a general way so that they could be flexibly fashioned by the observer to the particular project under consideration. (See Appendix A.)

Observers spent anywhere from one to three days visiting a single project, with the average visit lasting one and one-half days. During this time they were instructed to interview as many key persons connected with the project as possible, paying particular attention to the individuals who planned and directed the operation and those who delivered and received the services offered by the project. In addition, they solicited the perceptions of school board members and other community spokesmen. The projects were visited in March, April, May, and June of 1968.

Characteristics of Projects Visited

The ten tables in the following pages of this chapter contain summary descriptors of the Title III projects visited. No measures of central tendency or dispersion are presented because to do so would imply, incorrectly, that the projects were selected at random or in some complex stratified fashion. Nevertheless, we present summary statistics in order to provide the reader with a better grasp of some of the dimensions of the projects upon which our study was based.

The 60 projects received federal funds in amounts which ranged from slightly in excess of $11 thousand to over $2 million; the modal amount fell between $50 thousand and $100 thousand. The projects served target groups ranging from 40 to almost a million individuals. In some instances the target groups were composed of students, sometimes teachers and other professional and paraprofessional educators, and in some instances both students and educators were served. When the amount of federal funding per project is divided by the numbers of target individuals served, the amount ranges from $.42 to $690.60, with the more successful projects tending to have the higher per target-individual expenditures. The number of professional educators associated with projects ranged from 1 to 46 and the number of nonprofessionals from 0 to 46.

Table 1.1

Range and Distribution of Title III Funds Involved

	Number of Projects	%
$ - 49,000	9	15.0
50- 99,000	15	25.0
100-149,000	7	11.7
150-199,000	9	15.0
200-249,000	8	13.3
250-399,000	6	10.0
400,000+	6	10.0
Total number of projects =	60	100.0

Table 1.2

Individuals Served with Title III Funds

	Number of Projects	%
- 5,000	22	38.4
5,000- 9,999	12	20.0
10,000- 14,999	2	3.3
15,000- 19,999	2	3.3
20,000- 24,999	4	6.6
25,000- 99,999	9	15.0
100,000-159,999	4	6.6
160,000+	5	6.8
Total number of projects =	60	100.0

Table 1.3

Average Amount of Title III Funds Spent per Individual Served

	Number of Projects	%
Less than $3.99	15	25.0
$ 4.00- 7.99	11	18.4
8.00-11.99	3	5.0
12.00-15.99	2	3.3
16.00-19.99	2	3.3
20.00-29.99	3	5.0
30.00-49.99	7	11.6
50.00-99.99	6	10.0
100.00+	11	18.4
Total number of projects =	60	100.0

Table 1.4

Professionals Employed

	Number of Projects	%
Less than 5	19	31.7
5- 9.9	16	26.7
10-14.9	8	13.3
15-19.9	5	8.3
20-24.9	4	6.7
25-29.9	1	1.7
30+	7	11.6
Total number of projects =	60	100.0

Table 1.5

Non-professionals Employed

	Number of Projects	%
Less than 5	39	65.0
5- 9.9	10	16.6
10-14.9	4	6.7
15-19.9	4	6.7
20-24.9	1	1.7
25-29.9	-	-
30+	2	3.3
Total number of projects =	60	100.0

Table 1.6

Number of Local Educational Agencies Involved*

	Number of Projects	%
- 3	14	31.2
3- 5.9	8	17.8
6- 8.9	4	8.9
9-11.9	3	6.6
12-14.9	1	2.2
15-17.9	2	4.4
18-49.9	7	15.6
50-99.9	4	8.9
100+	2	4.4
Total number of projects =	45	100.0

*Information available only for 45 projects.

Table 1.7

Project Purposes

Primary Objectives	%
1. Curriculum enrichment	22.3
2. Instructional improvement	21.2
3. In-service training	15.9
4. Planning projects	11.8
5. Cultural enrichment	11.6
6. Community relations	2.2
7. Miscellaneous	15.0
	100.00

Table 1.8

Thrust of Projects

Major Thrust*	%
Innovative Projects	53.4
Exemplary Projects	46.6
	100.0

* The distinction between "innovative" and "exemplary" is at best complex. This breakdown is based upon designations made by project applicants in their proposals for Title III funds.

Table 1.9

Observer Ratings of Projects Visited

Ratings	%
Successful Projects	65.0
Unsuccessful Projects	35.0
	100.0

Table 1.10

Regional Location of Projects

Region	%
North	48.3
South	21.6
Midwest	6.8
West, Far West	23.3
	100.0

The number of local educational agencies involved in the Title III projects visited ranged from a low of 1 to a high of 550. Curriculum enrichment and instructional improvement tended to be the main purposes for which projects were established. Conversely, purposes such as community relations and inservice education were proportionately few in number. Projects were divided almost equally between those classified by U.S.O.E. as "innovative" and those selected as "exemplary." Almost 50 percent of the projects were located in the Northern portion of the U.S., approximately 20 percent in the South, another 20 percent in the West and Far West, and the remainder in the Midwest.

A Digression on "Evaluation"

As established in the law and as administered by the Office of Educatino, Title III contains no single, operational objective. It does not possess a unitary baseline against which global measures of progress can be made. Federally funded compensatory education programs, vocational education projects, and other endeavors such as Head Start, Upward Bound, and the Job Corps are aimed at target populations. Consequently, measures of their success (e.g., reading achievement scores, school holding power, employment rates, college acceptance ratios, etc.) are more readily available, even if not frequently employed. Yet other federal programs, such as Title III of the National Defense Education Act, are aimed somewhat categorically at achieving improvements in the instruction of specified subject matter areas. And, even though evaluation may be difficult and infrequent, relatively specified program goals do exist against which assessment can be made. ESEA Title III, however, is not aimed at a particular target group or subject matter area; rather its goals are a mosaic constituted of the objectives of hundreds of individual Title III projects located across

the United States. Project objectives, moreover, are related to priorities of the local authorities who receive the funds. Differences in priorities reflect the diversity in quality of programs, as well as in values and outlook, that is such a remarkable characteristic of American education.

In addition to the absence of a standardized baseline against which to measure the effectiveness of Title III, it must also be recognized that even though the total three-year federal appropriations of $397 million for Title III appear large in an absolute sense, it actually constitutes a mere one-quarter of one percent of the aggregate national expenditures for elementary and secondary education. Even when it is granted that Title III funds were to have been spent at the margin, that is, for new and different kinds of programs, not for existing operations, it is unlikely that a less than one percent increment is going to result in a change in educational quality so dramatic as to be immediately visible when viewed against the backdrop of the entire national scene.

Given the assessment difficulties associated with the lack of a unidimensional objective and relatively low levels of resources, this study made no effort at a global evaluation of Tital III's impact upon U.S. education. Rather, our approach was to identify in tangible terms how Title III has made a practical contribution toward solving significant educational problems.

Most of the money spent on the elementary and secondary school services each year is controlled in advance by education codes, by contractual arrangements with teachers, etc. In effect, the money is committed to the perpetuation of a rigid, self-reinforcing production function. Is it possible that Title III funds, a mere .5 percent of total national expenditures for elementary and secondary education, when injected in a new way into the educational system, can flow, like a drop of mercury placed on an encrusted surface, in directions not previously explored? Can Title III's .5 percent be put to useful tasks for which the other 99.5 percent of funds is unavailable? Are these tasks important, in the sense that their performance exerts leverage on educational operations as a whole? Like mercury, does Title III illuminate channels or progress unseen by the eye of the casual observer? These are questions we posed as we set out to observe and analyze 60 Title III projects.

A Further Word of Caution

No effort was made in our observations to judge whether a specific project deserved to be sustained by federal funds. We viewed projects only from the standpoint of what they could tell us about the general picture of Title III. Consequently, any mention of a particular Title III program

or idea in this report is made only to illustrate a larger point, not to suggest that the program under discussion is more or less worthy than any other program.

We wish also to make clear the independent nature of this report. Our study of Title III is neither based upon nor connected with any previously conducted studies of Title III. Moreover, although the study was supported in part by resources made available by the U.S. Office of Education, that agency in no way directed or is responsible for these findings or recommendations.

* * * * *

With this introduction in hand, we launch into the body of the report. It is our hope that what follows will prove helpful to those at all levels of government and education who make decisions about, are employed by, or who benefit from Title III. In addition, we hope that our message is of value to more than a few interested "lay" citizens who, in the final analysis, pay for and benefit indirectly from the educational improvements intended by ESEA Title III.

CHAPTER II

The History of Title III

Legislative and Political Background

When it was initially enacted, the Elementary and Secondary Education Act was a well-rounded legislative package containing two primary emphases: (1) EQUALITY, (2) QUALITY.[1] Equality of educational opportunities is a primary goal of Titles I, II, and V of the original Act. Title I, containing the bulk of the Act's authorized funds, is directed at improving the educational services available to large numbers of children from economically deprived circumstances. Title II authorizes federal funds for the purchase of instructional equipment and materials. And, Title V is aimed at buttressing state educational agencies so that they might become more equal partners in the federal, state, and local partnership in education.

The ESEA's concern for QUALITY is manifested primarily in Titles III and IV. The chief federal architects of the Act anticipated that long range gains in educational quality would flow from Title IV's investments in research and widespread operational development of research findings. Title IV's research and development activities, however, could not be expected to work wonders overnight, nor perhaps even within the next decade. Consequently, hopes for more immediate improvements in the quality of U.S. education centered on Title III.

The pursuit of educational excellence as a goal has provoked little or no controversy; however, arguments regarding the means by which this objective can best be achieved have pulled Title III along a number of politically turbulent trails.[2] The original Title III legislation authorized federal funds to establish "supplementary centers and services." The Title's designers intended that these centers and services would serve as models demonstrating the feasibility of research results and new educational ideas to surrounding local schools. It was hoped that educators — both public and nonpublic — would be induced by the spirit of Title III and the availability of large amounts of federal resources to bring new solutions to bear upon a host of old educational problems. A state allocation formula based upon the number of children of school age and the total state population assured each state an equitable share of the Title III funds. However,

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[1] In fact, at one point in the drafting stages of the ESEA, serious consideration was given by Office of Education personnel to including the words "quality" and "equality" in the name of the Act.

[2] More detailed descriptions of the origins of Title III and the political controversies surrounding it are contained in "The 1965 ESEA: The National Politics of Educational Reform" by James W. Guthrie (unpublished Ph.D. dissertation, Stanford University, 1967).

overall administration of the program was to remain centralized at the federal government level.

Federal, rather than state, administration was chosen for two primary reasons: First, it was thought that state educational agencies were ill equipped, because of a weak leadership tradition and a shortage of qualified personnel, to administer a large new program embodying relatively radical concepts of educational quality and innovation. Moreover, there was a fear that state agencies would succumb to pressures from the many local school personnel they serve and consequently would disperse Title III funds in a thin "veneer" over a wide number of projects and school districts. Such a distribution pattern, though it perhaps would be politically popular, would jeopardize the desired massing or clustering of resources thought necessary to achieve improvements in quality.

A second reason for choosing federal administration was the thought that a unitary decision-making authority would have greater perspective in judging which of numerous proposed projects would have national and regional significance. Moreover, it was hoped that centralized decision making would reduce excessive duplication of "pilot" operations and "risk" capital projects involving similar ideas.

Opponents of federal level administration wasted little time in making their feelings known. Their case rested essentially upon four points: (1) Constitutionally speaking, education is generally conceded to be a state responsibility primarily, and thus state educational agencies were the logical administrators. (2) State educational agencies were more knowledgeable than USOE regarding the needs of local school districts and thus were in a better position to make decisions concerning where and how the money should be invested. (3) States could communicate with local educational agencies more directly and rapidly and would avoid much of the delay and "red tape" which allegedly would surround the U.S. Office of Education administration. (4) ESEA Title V funds would supply states with the resources they needed to assume the leadership responsibilities inherent in administering Title III.

Congressional passage of the initial version of the ESEA represented a victory for those desiring federal administration. However, advocates of state agency operation did not relax their opposition. They continued to make their feelings known to those administering the program and repeatedly tried to persuade Congress to amend the Act. For two years following the 1965 enactment, logical arguments and political pressures ebbed and flowed between the two camps until, in December of 1967, state administration proponents achieved a legislative victory. With acceptance by both Houses of Congress of the so-called "Green Amendments,"[3] Title

[3] Named after their major sponsor, Congresswoman Edith Green (Democrat, Oregon).

III administration was placed in the states beginning in July of 1968. Thus, after almost three years of USOE administration, the initial chapter in Title III's history was closed. It was a chapter marked by a degree of political instability and administrative clumsiness, but it also was a chapter that recorded a measure of educational success. As of mid-1968 the clear challenge to the states was to improve upon this record.

USOE Administration

Title III came into existence officially on April 11, 1965, the day that President Lyndon B. Johnson signed the Elementary and Secondary Education Act. Thereafter began the awesome task of establishing the administrative arrangements necessary to implement a totally new approach in federal aid to education. The concepts embodied in Title III were new to almost all public authorities in the field of elementary and secondary education; nowhere had the idea of consciously fostering innovation in the schools been translated into action on a wide scale. There existed no administrative model which could be readily adopted. The United States Office of Education was to be placed in a position of dealing directly with hundreds, potentially thousands, of local educational agencies. The highly decentralized nature of the U.S. educational system, really a "non-system" composed of fifty individualistic state educational agencies and some 22 thousand largely autonomous local school districts, made the task no more easy.

Shortly after enactment, Office of Education writing teams began drafting the federal regulations and administrative guidelines which would constitute the official communication of Title III to the field. However, complete details regarding Title III operation had to await reorganization of the entire Office of Education. Beginning with the passage in 1958 of the National Defense Education Act, the responsibilities of the Office had increased remarkably from its initial congressional charge to

> . . . collect statistics and facts showing the condition and progress of education in the several States and Territories, and to diffuse such information respecting the organization and management of schools and school systems, and methods of teaching, as shall aid the people of the United States in the establishment and maintenance of efficient school systems, and otherwise promote the cause of education throughout the country.

Prior to 1965, the Office had been responding slowly to its added responsibilities by employing new personnel and by internally rearranging administrative components. Passage of the massive programs contained in the ESEA, however, made it abundantly clear that a major reorganization and the recruiting of a greater number of more qualified personnel would be needed. Thus, in the Spring of 1965, a Presidentially appointed task force, under the direction of the Atomic Energy Commission's Assis-

tant General Manager, Dwight Ink, began drafting a blueprint for a revitalized USOE.[4] As the reorganization plan emerged and was implemented, the administration of Title III was assigned to a newly formed Division of Plans and Supplementary Centers within the Bureau of Elementary and Secondary Education. Within the Division of Plans and Supplementary Centers, the decision was made to divide the United States into geographic regions, each of which was to be served by an administrative unit known as an "Area Desk." The number of such "Desks" was originally established at three, later became five, and in July of 1967 was increased to nine.

That the Office of Education found it desirable to carry out a major reorganization in order to administer Title III and its other new responsibilities may indicate that structural changes of a profound order will also need to be considered by state educational agencies, as these organizations increasingly find themselves called upon to administer new programs and expanded responsibilities.

Proposals seeking funding under Title III began to be received by USOE personnel in the autumn of 1965. Each proposal was evaluated by panels of professional educators from both within and without the Office of Education. The proposals were competitively rated according to criteria which included the degree to which the program being proposed was truly innovative or exemplary for the nation, the region, or the state involved. An attempt was made to avoid excessive duplication of "innovative" ideas (defined as those which appeared promising but which had not been systematically tested) while simultaneously obtaining an optimum geographic dispersion of "exemplary" ideas (those which though having proved themselves more thoroughly were still not in widespread use.) This administrative and proposal evaluation process was slightly modified over time, but its essential characteristics remained constant during Title III's three-year tenure under the authority of the U.S. Office of Education.

Listed by states in Appendix B are the number of Title III proposals received by the Office of Education, the number approved and funded, and the amounts of federal funds involved during the time period from fiscal 1966 to fiscal 1968.

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[4] A short but interesting description of USOE's reorganization is contained in Stephen K. Bailey's *The Office of Education and the Education Act of 1965*, Inter University Cast Program #100 (Indianapolis: Bobbs Merrill Company Inc., 1966). A longer version is available in Stephen K. Bailey and Edith K. Mosher, *The ESEA: The Office of Education Administers a Law* (Syracuse: Syracuse University Press, 1968).

CHAPTER III

Examples of Title III Success

It is the general conclusion of this study that Title III has performed a unique and valuable role in stimulating innovation in elementary and secondary education. The purpose of this chapter is to describe in detail several educational dimensions within which Title III projects have demonstrated success potential for future contributions to education. We do not wish to imply that every Title III project we visited was successful; such is not the case. Rather, our object is to point out general areas within which projects which we have observed and will describe are making substantial progress in meeting a major problem of U.S. education. Moreover, we hope that the descriptions will make clear our contention that these successful projects were of a type that only a Title III type grant would be likely to stimulate.

Breaking the Instructional Mold

There is a growing body of systematic evidence that learning is in large measure a unique process for each person. Regardless of whether one relies upon research findings of modern learning psychologists, with their affinity for abstractions such as cognitive styles, reinforcement schedules, and retention rates, or adheres to the somewhat less sophisticated descriptions of past observers, who spoke more generally of "individual differences," it is evident that humans intellectually internalize knowledge and skills in different ways, and at different rates. When an individual has learning requirements substantially different from those of his classroom peers, he encounters difficulties which are seldom dealt with effectively enough in the traditional classroom to allow him to stay on the path of progress. His non-learning is both a private and a social loss. While in its incidence, such waste tends to be biased toward lower socio-economic groups, it occurs on some scale in all groups.

Despite a long awareness of the great diversity with which individuals learn, the procedure of one teacher lecturing to twenty-five or more students has persisted as the typical mode of instruction ever since public education became a widespread activity. It is not that educational innovations have not been attempted; they have. Rather, the principal difficulty has been that, within the bounds of available resources, no alternative instructional format has consistently demonstrated itself to be a substantial improvement.

A. *Individualizing Instruction.* Within recent years, the added emphasis and resources given to educational research and development have produced a number of ideas and arrangements which show promise of achieving a closer match between the mode of instruction and the needs of the individual learner. By far the most dramatic development in this connection has been the application of computer technology to the solution of instructional problems. And, in addition to this "individualizing," the operational nature of computers has had the somewhat unanticipated benefit of encouraging curriculum builders to pay even greater attention to structuring subject matter in successive increments whereby mastery of one level leads naturally to a state of readiness for learning the next. In addition to computer-based instruction and "programmed" curriculums, ideas such as modular scheduling, team teaching, ungraded schools, teacher aides, and special teachers have provided a battery of alternative and supplementary procedures for more closely tailoring the educational process to the individual student.

As exciting as they may be, these arrangements for improving instructions have been accompanied by two major difficulties. The primary problem is lack of resources. Programmed instructional materials, teacher aides, smaller classes, and remedial or special teachers are expensive items, and the cost of acquiring them in quantities which would be useful far exceeds the annual revenue increments now available to most school districts. The second difficulty is that no one of these innovations, including the computer, is all-powerful. In order to be effective, the innovation needs to be fully integrated into a total instructional system. Simply to add teacher aides or to install several computer terminals is by no means to assure increased student achievement. Selecting and preparing the personnel to be involved (both teachers and students), obtaining suitable physical facilities, assuring the proper phasing of the new instructional mode with other segments of school life, and gaining parental and community support, are but a few of the factors associated with the successful integration of a new component into an overall instructional system. To plan carefully for this integration calls for resources above those which otherwise would be necessary — resources which, again, are not frequently available to local school districts.

The federal funds available under ESEA Title III are well suited in many ways for assisting local school districts in overcoming difficulties such as those described. Not only do Title III funds enable the district to attempt something new, but the "outside" nature of such funds protects the risk-taking educator from the allegation that he is "wasting the local taxpayers' money on an untried frill." Yet another advantage to Title III in this context stems from the necessity to write a project proposal in order

to be eligible for funds. Though having a proposal is no guarantee of success, the necessity to frame a written plan of operation strongly encourages efforts to define objectives, work out procedures for them, and establish mechanisms for evolution.

It is possible that a great many of the approximately fifteen hundred Title III funded projects across the nation are involved in some way with the objective of individualizing instruction. We are not able to establish from our observations the proportion which have or have not been successful or the total effect they have had upon U.S. education. We do feel, however, that several of the Title III individualized instruction projects we observed contain the potential for widespread success and effectiveness.

1. *An Individually Prescribed Instruction Program in California:* One of the most dramatic and successful examples of Title III funded individualized instruction projects is operating on a pilot basis in a consortium of four Northern California school districts. The project, which is labeled "Individually Prescribed Instruction" (IPI), is a version of a program pioneered at the University of Pittsburgh and the Oakleaf Elementary School in Pittsburgh. As adapted by the California schools, it involves integrated use of several innovative components: programmed instruction, team teaching, teacher aides, flexible scheduling, and special teachers. The program, which centers on reading and mathematics, has been implemented with upper elementary grade children in four schools, one in each of four school districts. Its essential characteristics are as follows:

What normally would constitute year-long sequences of curriculum in reading and mathematics were carefully analyzed to identify the basic skills and concepts embedded within them. Subsequently, a series of programmed instructional units was devised; each unit having one key concept or cluster of skills as its focus. Units begin with a "pretest," the results of which enable a teacher and student to determine the breadth and intensity of study necessary to master the concept involved. From pretest results, a learning program is prescribed for each student which will provide all the necessary new information and practice exercises. The student can work on this programmed curriculum unit at his own speed and is free to seek the assistance of the teacher or teacher aide whenever he desires. Each student places his completed work for a day in an individual folder. Later in the day, a teacher reads each folder's contents, assesses the child's progress, and, by marking a check sheet, prescribes the child's next learning activity. At the appropriate time on the following school day, the student retrieves his folder and sets about obtaining and completing the curriculum assignment called for by the teacher's prescription.

Each programmed instructional unit also contains a "post test" which provides even more definitive evidence of a pupil's progress toward the comprehensive level desired. When a student has attained a predetermined level of achievement on the post test, the teacher may decide that he is ready to proceed to the next instructional unit in the

sequence. The basic procedure of pretest, programmed instruction, curriculum embedded tests, more individually tailored instruction and post test are repeated at each new level of learning.

The narrative up till this point has depicted the IPI program as though the life of a student was but a constant cycle of interacting with tests and programmed materials. Such is not the case. The instructional units contain a number of branches which take the student outside the immediate realm of the programmed curriculum. Library assignments are the most frequent means for varying the pattern, but there are other alternatives as well. For example, experiments in "seminaring" are being conducted, in which a group of four or five students works together on a commonly prescribed assignment. Also, two students may be used to instruct one another, the result being that both learn something new. Teachers periodically "lecture," that is, speak to more than one or two students at a time. However, this is a rare event, and when it is done the reason is seldom for instructing in the traditional sense. Rather, it is recognized that some kinds of supplementary materials may best be taken up in a group; for example, a teacher may present a brief history of mathematics to enrich and add variety to the mathematics curriculum and to act as a stimulant to student interest.

The instructional system is composed of several additional components. Teacher aides are available to correct tests and other materials completed by students so that they may have immediate feedback regarding their results. In addition, teacher aides assist students in locating materials and, at times, in explaining points which otherwise are not clear. With the help of the aides, teachers are left almost totally free to instruct, assess the progress of, prescribe the next step for, and lend encouragement to individual students.

An additional and integrated innovation is the arrangement of teachers into teams. This has enabled teachers to specialize in either the reading or the mathematics portion of the curriculum and thereby gain added expertise. Each specialist assumes leadership for his portion of the curriculum. Moreover, the team is supplemented by a librarian who is also a specially trained reading teacher. Certain portions of the reading curriculum call for students proceeding to the library, selecting books, and obtaining information necessary for completing the day's assignment. Library segments, and this is a substantial part of the reading curriculum, are under the supervision of the library-reading teacher. She corrects and prescribes library-related assignments and integrates library activities with the classroom activities.

The individually prescribed instructional format has been designed to fit within the framework of most school operations. It does not demand reordering of physical facilities or administrative arrangements. Twenty to thirty students can still be assigned to a teacher and something like the traditional grade level structure can be maintained. Moreover, the program can work, though perhaps not as effectively, without all the innovative components. For example, if resour-

ces were short, fewer teacher aides, or special teachers could be utilized. This adaptability is an obvious strength of the IPI approach.

An additional benefit which appears to be accruing as a result of the individually prescribed curriculum is the growth of autonomy and self-initiating action on the part of students. The instructional format is designed so that each student is clearly aware of his objectives for a particular instructional unit and how those objectives relate to his activities for that day and week. There exists little doubt at any one point in time of what constitutes appropriate activity. His school day is not programmed with the precision of an automaton, but neither is it characterized by any general vagueness of purpose. The expectations for a student's actions are clear, and student behavior appears to reflect this clarity.

Our observer was repeatedly impressed by the orderly and seemingly productive actions of students even when left in relatively unsupervised situations. Third, fourth, and fifth-grade students spent up to twenty and twenty-five minutes steadily engaged in independent study. Those involved in library assignments talked with one another periodically, but a substantial portion of their discussions seemed to center on the assignment at hand. In one instance, eight fourth-grade boys were seen to leave their classroom unescorted and proceed directly to the library without giving in to the distractions of a loose volleyball, a drinking fountain, and a restroom. In almost anyone's eyes, that is self-direction of an extraordinary order for 10 and 11 year-old boys. The significance of such independence and autonomy lies in the need for U.S. education to move from the past ideal wherein education was conceived of as being a process of packing finite units of information into the minds of students, and moving toward a new ideal wherein education is viewed as a process which prepares and motivates one for a lifetime of sustained inquiry. The increasing rapidity of change and the continuing expansion of knowledge no longer allow individuals the self-deception and luxury of "mastering" a body of knowledge for all time.

Largely as a result of its being a pilot program connected with the University of Pittsburgh, the IPI project is being subjected to a remarkably thorough and systematic assessment. Student progress is monitored to such a degree that all pretest and post test results are computer analyzed and a learning profile is constructed for each student. In addition, the school districts involved are conducting their own evaluations to judge the degree to which they wish to adopt the program on a wider scale. To date, the results have been encouraging, and the districts are implementing the program in other schools, even though doing so means paying the added costs of curriculum materials, teacher aides, etc. out of local revenues.

2. *A Reading Laboratory in Virginia:* The IPI project is an effort to shape the curriculum and instructional format to offer an individually tailored learning experience for each child. A somewhat less comprehensive, but nonetheless effective, alternative is being tested

three thousand miles away in a southern Virginia school district. Here the effort is not directed at all children, but rather, at those who are experiencing difficulty in learning to read.

The southern Virginia project is a reading clinic and laboratory which attempts to achieve its objectives by surrounding the student with intense and specialized instructional services. The clinic is housed in a building specifically adapted for the purpose. It contains the full array of equipment and materials judged to be useful in diagnosing and overcoming reading deficiencies. The center contains 24 specially trained professionals (teachers, tutors, psychologists, social workers, etc.) in addition to eight individuals who help with the administrative mechanics. The clinic is operated on a schedule which enables students to come before and after as well as during school hours. It is also kept open during the summer.

Students judged to be in need of intensified reading instruction are transported on a regular basis from their school to the clinic. Following a battery of diagnostic procedures, a remedial reading program is prescribed for the child. For some children this may result in as many as four clinic visits a week; for others it may be but one trip every two weeks. The number and length of sessions is determined by the severity of the student's problem. The child's progress is carefully supervised and assessed, and when it is judged that he has overcome his reading handicap, his clinic visits are terminated. His regular classroom progress is watched, however, and, if needed, additional clinic sessions are arranged.

In addition to serving students with reading problems, the clinic also functions as a district-wide center for reading-related activities. Inservice education programs in reading instruction are conducted for the district's classroom teachers, laboratory experiments in reading instruction are performed, and locally devised curriculum materials are developed and tested.

The project is by no means without its rough spots. Highly qualified specialized personnel are difficult to locate and retain. Teachers do not always understand the advantages of such intensified instruction and sometimes are reluctant to permit students to leave their classrooms. Also, at times, the necessity for transporting students to a centralized point is burdensome. Despite such difficulties, the results appear encouraging. The pre and post test results of students assisted by the clinic provide evidence of the program's effectiveness in individual instances. However, a few years must pass before it will be possible to assess the clinic's overall impact. In time, an effort will be made to evaluate the clinic's effects upon reading instruction and achievement throughout the district.

B. *Enriching and Extending the Curriculum*

The California IPI project, the southern Virginia reading clinic and laboratory, and several other projects among those visited demonstrate dramatically that Title III can stimulate instructional reforms. An equally

impressive array of projects provides evidence of Title III's ability to trigger curriculum change.

It is difficult, even among the closest of friends, to achieve agreement on the purposes of formal education. However, most persons concur that what takes place within the confines of a school's walls should be relevant to what takes place outside. Even those who feel strongly that education is good for its own sake, that learning has intrinsic merit, frequently concede that, at least on some dimensions, it is important to relate the words, numbers, and skills learned in class to life outside the school.

However, despite general agreement regarding the desirability of relating schooling to other aspects of life, there exists a great deal of evidence and informed opinion that America's schools often fail to make this relationship clear. All too often, learning centers around what is to be found in textbooks; too little effort is made to extend education beyond the boundaries of the school or to bring what exists beyond those boundaries into the school. At best, this tendency to overemphasize knowledge for its own sake results in the ability to grapple intellectually with abstractions; the risk, however, is great that the abstractions have no counterparts in reality. At worst, such curricular insularity may lead, in students, to an attitude of disinterest or "dropping out."

We would not presume to declare some point on the continuum from an "abstract," book-oriented curriculum to a "reality," experience-oriented curriculum as being educationally optimal. From our observations, however, we have identified several projects which appear to demonstrate forcefully the potential of Title III to stimulate curriculum enrichment and expansion. A description of these projects follows:

1. *A History-Oriented Project in New Jersey:* Schoolmen, students, and citizens in a mid-New Jersey community have decided to capitalize educationally upon their community's rich and fascinating history. A number of students from the town's high school have a substantial portion of their formal education experiences woven into the community endeavor of reconstructing the town's past. Title III funds have been used to combine and extend the activities of the town's American Civilization Institute into an integrated educational program. The Institute has developed a laboratory approach to the study of American civilization with an immediate focus upon the restoration of one of the town's pre-Revolutionary homes. Students from the town's high school are engaged in a range of endeavors directed at reconstructing the house and the life and times of its occupants. Students are involved in: archeological research and the recovery of local artifacts and building remains; establishing historical archives; preparing an oral history; setting up a museum; reproducing art and craft objects; preserving antiquities through physical and chemical

techniques; and restoring a pre-Revolutionary house and its surrounding buildings.

Through the disciplines of archeology and cultural anthropology students are brought into touch with many areas of human knowledge. Archeological excavation leads to the need for chemical assessment of material remains, biological identification of plants and animals, and the analysis of ecological conditions. This, in turn, involves geological estimates of the soils as they reflect the physical history and geography of the area, analysis and reproduction of recovered craft objects in order to reconstruct industrial processes, and extensive study of surviving "period" objects (such as roads, books, maps, newspapers, deeds, handbills, pictures, accounts of persons and events, and photographs).

The project's primary benefit has been to bring the classroom's historical concepts and facts to life. However, some unanticipated consequences have also occurred. The project has drawn the students and faculty members of the town's high school together with their counterparts in academic departments at a nearby university. The frequently formidable gaps between high school and college students and status discrepancies between secondary school and college faculties have by no means been totally eroded, but they have been bridged by a spirit of mutual respect which promises continued productive cooperation in the future. Also, the activities of the students appear to have renewed the community's interests in its history and stimuated townspeople to work along with students in their efforts to understand better the relation of history to modern events.

2. *A Science-Oriented Project in Connecticut:* A former NIKE missile site high atop a Connecticut mountain has been transformed by Title III funds into a sophisticated science instruction center serving some 14,000 students in nine school districts. The center contains an extraordinary array of astronomical, geological, and meteorological equipment and a number of staff members who are exceptionally qualified to use it for instructional purposes. However, an even more impressive feature is the degree to which the project has influenced science curricula in the participating schools.

Information regarding the facilities, personnel, and programs of the Connecticut science center has been sufficiently disseminated so that teachers are able to integrate the center's resources and programs neatly into their science curricula. Regardless of the ability-level and grade-level of the class involved, the science center has something of relevance. A science center instructor comes to the classroom at the beginning of a particular science unit. His purpose is to prepare the class for the demonstrations and instructional activities which subsequently will take place at the science center. Then, at an appropriate point in the unit, the class is transported to the center where maximum benefit can be obtained from expensive equipment such as telescopes and seismographs.

Every effort is made to enable students to work with the equipment and displays in a manner which emphasizes underlying scientific concepts and plays down the marvels of the technology *qua* technology. Depending upon the science unit involved, students may make one or several trips to the center. Trips may occur during the regular school day, on weekends, or, particularly for astronomy units, at night. In addition to enriching the science curricula for all students, the center provides a unique intensified science program for especially talented and interested students.

There is increasing evidence that the center is making its presence felt in a number of subtle ways. The repeated exposure of thousands of school children to the center's exciting and high powered programs has stimulated more students to select science course electives than was previously the case. Also, if the sale of scientific equipment to youngsters by community merchants can be taken as a measure, out-of-school interest in science has increased. Moreover, the center's curriculum programs and the visits of center staff to school classrooms appear to be reorienting the teaching of science in many of the participating schools. Teachers are finding that a simple "cookbook" approach to science will no longer suffice if they are to relate their efforts to the science center's programs and facilities.

3. *A Fine Arts Oriented Project in California:* The post-Sputnik emphasis upon educational excellence has often relegated certain segments of the curriculum to a kind of second-class citizenship. Whereas science and math particularly, and all "academic" disciplines generally, have tended to flourish, the fine arts have been frequently neglected. It is difficult for art, music, and drama courses to compete for time and space in the crowded schedules of today's students. This is especially true in the case of college preparatory students, the group who frequently displays the greatest enthusiasm for artistic endeavors.

The Title III funded performing arts project operating in California's Central Valley is aimed at redressing this curriculum imbalance. The project is operated through the office of a county superintendent of schools in an area about one hundred miles from San Francisco. The county contains much fertile farmland but many of the area's residents are agricultural workers whose economic and cultural conditions are not nearly as rich as the soil they till. Moreover, the schools are among the most hard-pressed financially in the State. Financial support of the "3 R's" is seldom easy, and requesting local funds for a visiting ballet troupe, folk singer, or theatre group, activities many would label as educational "frills," would likely stimulate substantial community controversy.

The availability of Title III funds motivated a few concerned individuals to prepare a proposal for what eventually became the county-wide performing arts project. Over the two years of its operation, the project has brought some of the Nation's finest musical, theatrical, and dancing talent into the schools of this rural area.

Successfully coordinating performers, both individuals and groups, with the schedules of dozens of schools located over hundreds of square miles is a logistical feat worthy of applause in itself. If this were its total accomplishment, however, the performing arts project would have to be categorized primarily as entertainment. Such is emphatically not the case. An extraordinary attempt is made to integrate performance with the curriculum efforts of the schools involved. This entails much communication and coordination with administrators, the provision of curriculum materials to teachers, and the briefing of performers on what is expected of them. The demands made of performers are seldom simple. For example, the dancers in the San Francisco ballet troupe, which spent two weeks in the county, in addition to performing regularly on stage, were deployed throughout the participating schools to explain the intricacies of their art and the dramatic content of their program to small groups of students. And, because of these extensive efforts to integrate performances and performers into the curriculums of schools and individual classrooms, it is not at all uncommon for a one-hour performance to serve as a stimulus for literally days of fruitful classroom discussion and learning.

Many anticipated benefits, and several unexpected ones have resulted from the performing arts project. An example of the latter involves handicapped, particularly mentally retarded students. Music has proved to be an exceptionally effective means for motivating these students; in addition, it provides a nucleus around which teachers can meaningfully arrange a great deal of their curriculum. Also, students from economically and culturally deprived homes appear to respond especially well to instruction which is embedded in music, dance and drama.

An evaluation of the effectiveness of the project has been made by a team comprised of faculty members from a nearby college drama department and school of education. The project is successful according to their criteria, but a more quantitative, "objective," evaluation has yet to be made. Only in time will it be possible to determine whether or not more students are choosing electives, selecting careers, or taking greater advantage of local offerings in the performing arts. However, the planned reduction in Title III funds has provided one measure of the program's success. As federal funds are deliberately being phased out, local districts are being requested to support an increasing proportion of the project with local funds. And, despite the relative scarcity of funds for schools, the majority of the districts participating have elected to contribute local funds in order to sustain the project.

C. *Integrating the Curriculum*

For some time, at least since the days when John Dewey was actively espousing the idea, educators have sought means by which to integrate the curriculum of the school so that students might perceive more readily the relationships among their varied classroom experiences. This desire has

given birth to arrangements such as the so-called "core-curriculum" in which attempts are made to coordinate the learnings of English and social studies and mathematics and science. Such integrated curriculums have seldom been viewed as successful. Several Title III funded projects, however, have tackled this problem, and a particularly outstanding example of such an approach follows:

1. *A Computer Project in Nevada:* You can guess that the odds of Lady Luck shining favorably on you rather than on the house at a gambling table in Reno or Las Vegas are somewhat less than 50-50. If you are a student in a Nevada public school, on the other hand, the chances that you will be able to calculate odds scientifically, via methods substanitally superior to old-fashioned intuition, are closer to 100 per cent, thanks to a new computer in one of the State's high schools. The project has three general purposes: to expand and enrich the mathematics curriculum, to develop organized thought processes, and to improve attitudes and values toward technology.

Every school day high school students wander into the center, at their leisure and of their own volition, to utilize the computer on individual projects. The computer room, constantly buzzing with chatter and machine noise, is open to any student with a project or problem which is amenable to computer analysis. Two young center managers, both ex-classroom teachers, working under the guidance of the project director, walk from student to student giving assistance whenever requested. The computer itself is located in a special room reserved for computer operations. Paper tape is fed into the machine, and a Fortran programming language is employed by the students. Flexowriters punch programs onto the original tape.

One training device used to get the program underway was a computer science course for high school students. In addition, several teaching packets, called "Embedding Computer Programming in the Mathematics Curriculum" were prepared. These and additional materials were presented to interested teachers at a series of informal seminars. All schools in the state, public and private, were invited to send their teachers to the training sessions.

Theoretically, all schools in Nevada are in touch with the computer center. In practice, however, only those tied in via the telephone can obtain immediate answers to programming requests. Other schools, in both the county and in the remainder of the state, do participate through correspondence. A constant flow of messages comes into the computer center office. Requests are run through the machines by the students themselves, and the final products are mailed back to the school submitting the request.

Student projects are imaginative and instructive. One art student programmed, through random sampling, an attractive arrangement of four given shapes and colors. She listed the requirements in the computer's language and the machine produced the coordinates which

enabled her to paste up a selection in which all criteria would be met. Thus, the machine produced a beautiful work of art, and the student learned a great deal more about computers.

In addition, the computer was asked by students to predict the outcome of the pending national elections, to determine a balanced diet with a given calorie count, to match dating partners having common interests from the student population, and to keep the records of 100 band uniforms, each of which consisted of five pieces.

Physically, the computer center takes up very little room. Similarly, little encumbrance is felt by the connected schools; each has set aside a small room for sending and receiving computer data. Project officials are, of course, hopeful that more money will become available for the center so that additional computers, or at least additional flexowriters, can be installed throughout the school district and across the state.

Meanwhile, one major problem has developed. During conversations in nearby schools, it became evident that many students, though uniform in their praise of the computer, felt that they were victims of a gross injustice. Why, they asked, could not the computer be moved to their school so that they could have a chance to learn to run the machine? While this is indeed a problem, and, incidentially, while there is much to say for moving the computer to another location for a year or two, such complaints serve only to reinforce the success of the project.

D. *Using Modern Technology*

Ecnomists frequently speak of education as being "labor intensive." By this they mean that gains in educational productivity (i.e., the schooling of more students or better schooling for any one student) depend heavily upon the addition of more teachers. There has been little success in locating means whereby the productivity of any given teacher can be increased. Pupil-teacher ratios of the order of 20, 25, or 30 to 1 are standard. If there are more pupils to be schooled, the typical response is to hire additional teachers. Moreover, efforts to spread the benefits accruing from the instruction of particularly good teachers to more students than those in their own classrooms are uncommon.

The reasons for this labor intensity are complex, but one factor has been the relative lack of helpful technology. Movie projectors, tape recorders, and the like have come into use in education, but little has been invented which effectively enables one teacher to reach a wider audience. Of late, however, advances in electronics have led to the possibility of developing more productive educational technology. Several Title III projects have pioneered in this development, as an example from an Illinois high school shows.

1. *An Automated Retrieval System in Illinois:* On the basis of a faculty conducted study, an Illinois high school requested Title III funds to develop an electronically operated instructional information center. The project proposal was stimulated by two rather typical educational needs. The first was to find a way of coping with the explosion in usable information. Second was the desire to individualize instruction as much as possible. A decision was made that a *random access* automated information retrieval system would be an innovation which could assist significantly in the pursuit of these twin goals.

At the inception of the project, no random access information retrieval systems had ever been developed completely. Components for such a system were available, but had not previously been combined. A West Coast electronics firm had agreed to cooperate with the school district to develop such a system.

In March of 1968, the audio retrieval portion of the system was placed in use on a trial basis. It consists of a master storage bank, a program control center, and twenty-five student carrels or stations located in the information retrieval center adjacent to the school library. Other carrels and stations are being installed in subject matter resources centers adjacent to classrooms. From his carrel a student may select any item in the storage bank he desires or to which he has been assigned. Regardless of how many other students are selecting programs, regardless of what program he chooses, and regardless of how many programs are available in the storage bank, the student has access to his individual lesson within 60 seconds.

The storage bank contains several multiple-track master tapes on which individual fifteen-minute lessons or programs are recorded. Each student carrel is equipped with a high-speed recording device which is able to reproduce any fifteen-minute program in the storage bank. This frees the master tape for another student within thirty seconds. Master tapes, carrel control panels, and high-speed recording devices are directed by a computer. The random access capacity makes possible an expansion to an almost unlimited number of programs.

Final plans call for the addition of a video component which will make possible motion and color, as well as sound, reproduction of any program filed in the system's information bank. Also, in time, the system will be developed so that a teacher in any of the building's 200 classrooms can gain access to the information bank and immediately employ any of its audio or video programs in his classroom for instructional purposes. Further plans call for making the benefits of the retrieval system available to the surrounding area. Materials from the central information bank will be broadcast (for example by closed circuit, micro wave, or UHF) as requested by students and teachers in nearby schools or colleges.

The retrieval system is utilized to supplement and enrich classroom instruction; it is not a programmed instruction center. The classroom teacher defines the goals that the electronic facilities serve. The system simply introduces, demonstrates, reviews, reinforces or en-

riches regular classroom instruction; it does not replace it. It does, however, greatly expand the scope of a teacher's effectiveness. Programs placed on tapes can be used repeatedly by large numbers of students. Moreover, the system enables the benefits of expert teaching to be brought to a vastly increased student audience. The project is still in the research and development stage, but it appears to offer substantial promise for meeting some of the problems associated with labor intensity in education.

E. *Systematic Use of Resources*

The advantages of systematically assessing the efficiency with which desired goals are being achieved has long been recognized in sectors outside of education. However, difficulties in defining educational objectives, and until recently, the shortage of relevant measuring techniques have discouraged such an analysis in education. This is changing; the growing competition for scarce public resources and the availability of new analytical procedures is slowly stimulating assessment reforms in public education. Several Title III funded projects are assisting in laying the groundwork for such assessment endeavors.

1. *A Data Processing Project in Mississippi:* The analysis of cost-effectiveness depends upon the establishment of a pool of data. One needs to know not only the resource "inputs" (funds, personnel, time, materials, etc.), but also the "outputs" of various educational programs and procedures. A Title III data processing project has stimulated the establishment of such a data base in Mississippi. What began as a technological device to relieve teachers of clerical burdens has become a catalyst for substantial educational change. The data processing center initially offered its computer services for grade reports, pupils' permanent records, and test scoring. However, the center's presence has stimulated some of the following reforms.

The need to have a standardized format for the computer to handle grade reports has necessitated the adoption of a common grade report form by the participating Mississippi school districts. This common form makes possible, for the first time, comparison of some "outputs" across school districts. Moreover, the presence of the computer has encouraged local educators to examine more critically their assessment practices. Superintendents and building principals now have student performance information available to them on a school-by-school and teacher-by-teacher basis. One surprise was the discovery in several districts that almost fifty percent of the students were receiving failing grades. This finding triggered inservice workshops for teachers on evaluation and has led to a consideration of the degree to which the instructional mode now being employed is consistent with the needs of the students involved. Also, the availability of data is beginning to convince administrators that they can find new ways to assess the effectiveness of individual schools and teachers.

An additional avenue to the eventual establishment of a complete data base has come through the extension of guidance and counseling

services. In many of the participating school districts, psychological testing was not conducted prior to the establishment of the data processing center. Now, with the computer able to score and analyze test results, a large number of schools are, for the first time, administering achievement and intelligence tests. In the process, they are generating information which is helpful in counseling students and which eventually will provide useful measures of both "inputs" and "outputs."

The results of the data processing center have been sufficiently dramatic to stimulate the state educational agency to initiate a statewide data accumulation and processing system. Thus, in the not-too-distant future, Mississippi may well have one of the most complete and sophisticated banks of educational cost-effectiveness data in the United States. Again, the incentive was provided by the availability of Title III funds.

E. *Interdistrict Cooperation*

The likelihood is small that any one school district contains the specialized personnel, materials, and facilities to offer the full range and depth of desirable educational services. Consequently, district authorities decide where they will place their program priorities and concentrate their efforts. One district may develop a music program of note, another may become renowned for its science curriculum, yet another for the enthusiasm with which it pursues the teaching of history. Distributing the advantages of a particular district's strengths to compensate for the relative weaknesses of its neighbors has long been a desirable educational goal.

1. *A Regional Science Center in Tennessee:* Governmental and organizational arrangements associated with local school districts often render interdistrict educational endeavors difficult, if not impossible. However, the availability of Title III funds and the legislation's strong emphasis have led to a number of outstanding examples of such cooperation. A case in point is a regional science center located in eastern Tennessee. Here Title III funds have made possible the dispersion of the scientific expertise surrounding a large federal technological facility to dozens of less fortunate schools and school districts in the general area.

Eastern Tennessee would rank high on any list of areas in need of educational assistance. On one hand, the geography of the area tends to discourage progress. Communities are isolated from each other and the remainder of the world by long, high ridges of mountains. In many instances, winding gravel roads are the only means of connection. Actual distance from east to west has little bearing upon ease of communication because the majority of the roads run north and south in search of rare passes from valley to valley.

As though the topographic hardships were insufficient, the area is also beset by depressed economic conditions. The inability of mining

and agriculture to prosper has led to widespread unemployment, and the schools generally reflect this poverty. The state-wide expenditure per pupil is low, in some rural school districts barely $200. Many schools are badly in need of physical repair, and teachers are frequently inadequately prepared. (In some areas, 30% or more of the teachers do not possess an undergraduate degree.)

A large federal technological facility was purposely placed in the midst of this isolation and poverty. In time, the scientists and technicians residing there began to transform their local district into a model for the area. As might be expected, the schools' science programs were particularly outstanding. The problem was how to diffuse this excellence, how to bring high caliber science instruction to the one-room schools tucked in mountain valleys. The availability of Title III funds stimulated an effort to overcome the problem involved.

In 1966 a regional science center was established to supplement science instruction for 28 counties, 50 local districts and 250,000 students The most conspicuous of the center's services is the "Mobile Operations Program." Six vehicles have been specially equipped to carry science materials and a teacher to remote schools. The service is requested by the teacher in the school being served, and every effort is made to fulfill the request in the manner and at the time desired. The significance of this service varies. In some schools the visiting science teacher simply instructs more skillfully and with more equipment than the regular classroom teacher would otherwise have been able to do. In other schools, the visiting teacher constitutes the only science instruction that ever takes place.

Other services are also offered. Arrangements are possible whereby items from the center's vast supply of science equipment can be made available upon request to any participating school. The center's trucks and drivers deliver and return the equipment. A science materials information service is also made available to schools by the center. Using a modern coding system, publications of interest (*Scientific American, Science,* etc.) are placed on microfilm; titles are indexed and placed on a computerized retrieval device. A remote school can write or telephone for information and have suitable articles and displays returned to them in a few days. The work of the center in this respect is augmented by ten informational subcenters dispersed throughout the area.

In addition to providing teachers, equipment, and information, the center conducts inservice programs, both after school and during the summer, in an attempt to improve the scientific sophistication and instructional ability of the area's teachers. Also, the center provides enriched scientific experiences for exceptional students.

2. *A Regional Music Project in California:* A teacher in a large bedroom community in California became interested in the program of childhood education developed in Germany by the composer, Carl Orff. The program, which Orff initiated in the 1920's, is highly regarded in Europe, but until very recently was unknown in the United States.

In the program the child expresses himself, first through music, then drawing, in the aesthetic world. The work proceeds from a kind of choric speech to a variety of rhythms and, finally, to the use of specially designed instruments. The instruments are adaptable to varying degrees of musical sophistocation of the learner. Singing and dancing are emphasized, as well as the playing of instruments. Not only is the school day of the child brightened by the hour he spends in Orff-Schulwerk, but there are indications supported by a certain amount of quantitative analysis, that the creativity of the students is enhanced.

The California teacher, having learned through library study of the existence of Orff-Schulwerk, traveled to Germany and studied for a period of time with Herr Orff. The Title III grant allowed the introduction of the program into the district where she had been working, and also provided the funds which made it possible for Frau Orff to move to the United States and help with the development of the program in the district.

An interesting feature of the project is its multi-district nature. Administration of Title III has emphasized that, where possible, projects should involve more than one local authority. In the Orff-Schulwerk project, five neighboring districts receive services. Whereas the initiating district is almost wholly Caucasian, one of the cooperating districts is half Negro. And, whereas the project has been very well received in the parent district, its most outstanding reception has been in the Negro areas in this cooperating district.

Without the emphasis on multi-district projects that is embodied in Title III, almost surely the Negro community would have failed to receive the improvement in the whole atmosphere of their elementary schools that Orff-Schulwerk has accomplished. One cannot always count on the "person with an idea" being in that single school district at that special time when his idea is most needed. But if his idea can be tried out in a serious fashion over a wide area, it stands a better chance to bear its best fruit.

G. *Special Education*

It is estimated that one out of ten school age children in the United States is handicapped. These handicapped children number over 5,000,000. The Federal government defines the handicapped as those who are mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, crippled, or other health impairments and by reason thereof require special attention. The majority of these children can be benefited significantly from remedial procedures. Moreover, the long term financial costs to society of supporting handicapped children can be reduced by developing their capabilities and productivity. At the present time, it is estimated that no more than 40% of handicapped school age children are receiving the special education services they need. Even when

sufficient funds are available it is difficult to establish special education programs for handicapped children, due to the shortage of trained professional personnel. While comprehensive special education programs may cost more, if only 10% of the handicapped are helped by remedial procedures and special education programs to become self-sufficient members of the community, the benefits generated to the local communities and the states will exceed the costs.

The personnel needed to staff special education programs (trained teachers, social workers, psychologists, psychiatrists, physicians, nurses, etc.) are in exceedingly short supply and are expensive to employ. Much of the special equipment needed to diagnose and subsequently to overcome learning impairments is very costly. Consequently, not only is there a great need for special education services, there is also a need to arrange the distribution of those services so that the resources involved are utilized as efficiently as possible. Our observations disclosed several exemplary Title III projects which were providing these services efficiently. One such example is described below.

1. *A Diagnostic Service Center in Arkansas:* The southwestern region of Arkansas is composed of a number of small towns and rural communities. Until recently, for most of this region the provision of special education services was haphazard or nonexistent. As of 1966, however, a Title III funded diagnostic and remedial center has provided such services on a regular basis to a 4,000 square mile, five county area. The center serves 63 elementary schools and 44 secondary schools with a total of 23,000 school-age children.

The center has an administrative and clerical staff and two teams of specialists. Each team is composed of a social worker, psychologist, speech therapist, nurse, and special education teacher and has access to the services of a physician and a psychiatrist. The area surrounding the center is divided into two regions, each served by one of the diagnostic and remedial teams. The teams travel to individual schools on a regularly scheduled basis to evaluate and diagnose individual pupils referred to them by counselors, teachers, or parents.

All referrals are made through a local school district contact person. After consulting with the pupil's teacher and completing the diagnosis, the team or an individual team member meets with the teacher, school principal or counselor, and the child's parents to discuss the problem and outline procedures that all parties may take to improve the situation. In most instances the remedial program is conducted by the child's regular teacher and parents with periodic follow-up by the center staff. In the more difficult cases, however, center staff work directly with the child to provide remedial instruction.

Through use of a specially equipped mobile unit the center is providing speech and hearing screening service to all pupils in the

region. Also, a heart sound screening program is conducted, and those found to have abnormal heart symptoms are referred to family physicians for diagnosis.

In addition to diagnosing individual pupil problems, team members provide general consultant services to teachers, counselors, and principals in the areas of curriculum and teaching methodology. Also, the center has made a substantial contribution to the inservice education of the staffs of constituent schools. Several graduate courses for credit through the University of Arkansas Extension Division have been arranged and are taught by center staff members. Teachers' responses to these offerings have been good. In addition, the center has organized and directed many workshops and seminars for local school districts in the region served.

The improved learning rates of children treated by clinic personnel are impressive evidence of the project's success in individual instances. The districts involved are currently in the process of collecting baseline data against which they will be able to assess more global dimensions of the program's effectiveness. However, an interim measure of the project's success is provided by the large portion of participating schools and school districts which for the first time have begun to employ special education teachers, psychologists, social workers, etc. out of their own revenues.

H. *Incentives for Capable People*

The educator who strives for excellence can anticipate receiving relatively little recognition for his efforts. To be sure, teaching does contain some intrinsic rewards; students do respond to the efforts of an outstanding instructor, and, at times, even voice their appreciation. Frequently, however, students realize their debt to a teacher only some years afterward, and by then all avenues for expressing gratitude may be closed. The opportunity for added financial reward for outstanding performance is even more slight. In short, our educational system is now functioning under a weak set of incentives for performance.

Several factors account for the inadequacy of rewards and incentives. Only recently has the nation come to realize the significance of education in accounting for its past successes and in assuring its future survival. Consequently, those drawn to education and education itself have not been accorded particularly high status or furnished with substantial proportions of the Nation's resources.

Educators themselves, however, must also share the blame for inadequacies in the present reward structure. Their reluctance to submit their efforts to evaluation has tended to discourage the development of precise techniques for assessing instruction. In lieu of assessing effectiveness, teachers have used criteria such as numbers of years of teaching

experience and — to a lesser degree — increments of academic course work as the basis for financial compensation. The result has been a rather homogeneous, seniority-based pay structure which tends to reward the ineffective and penalize the outstanding.

In addition to the discouraging lack of rewards for performance, the educational system offers few incentives for the individual with a new or different idea. The teacher with a "better mousetrap" had best look elsewhere for implementing it; the educational system will seldom be able or willing to provide the resources and climate of support to develop or test that "mousetrap." The shortage of incentives results in inertia; those who would change the system are driven out or down by the lack of opportunity and recognition. Too often, those who remain are the defeated, and the defenders of the status quo.

We believe that Title III contains the potential to realign and alleviate these conditions. Frequently the most striking feature of a successful Title III project is the quality and enthusiasm of the persons connected with it. In our visits, it was sometimes the project director, sometimes the staff, and more usually, almost all the personnel involved, who were filled with a sense of purpose and committed to the success of the project. The availability of Title III funds had acted as a kind of "bait" to draw them to the surface of whatever local educational "pool" they were in. They viewed Title III as a vehicle to accomplish, at last, the plan or purpose they had harbored for so long with so little success. They were individuals who, if need be, were willing to take risks, to gamble their own security for the chance to try a new idea. The fact that Title III requires a written and competitively evaluated proposal is an indication of the willingness of project participants to go to unusual efforts. The proposal process carries no guarantee of funding; those who frame a proposal take the chance that their efforts will be fruitless.

Title III appears to exert a kind of "carrot" effect; the more venturesome, those who are willing to risk a measure of comfort and security in hopes of performing a service and rearranging the system, are given an incentive. Our observations provide us with numerous examples of such outstanding and intensely committed persons. They range from coast to coast geographically and include the MIT educated mathematician and musician who directs the Orff-Schulwerk project, the dedicated team of teachers which daily drives its fleet of science vans over the rutted roads of eastern Tennessee, the extraordinarily skilled technicians who plan, build, maintain, and utilize the science center. These and literally thousands of others are individuals who, in all probability, would never have entered or would have soon left education without the advent of Title III. This

is true not only because of the lack of incentives prior to Title III, but also because of the restrictive certification requirements which surround many and locally funded school endeavors, Title III provides for hiring creative new personnel as well as implementing creative new ideas.

Title III incentives are by no means infallible; there is no guarantee that they always attract the most highly qualified personnel. But it would seem that the chances of attracting such individuals with an incentive are substantially greater than relying upon existing alternatives. Because improvements in education ultimately depend, not upon new curricula, technology, instructional arrangements, etc., but upon people, we are impressed with the need to stimulate the best people to produce their best. Title III seems to provide such a stimulant.

Why Title III?

If it is granted that Title III has served to stimulate changes along several significant educational dimensions, an important related question yet remains to be answered. What is Title III's magic? Could not these changes have taken place in the absence of outside funds? Could not local school districts have accomplished these changes by themselves?

No clearcut answers exist. Obviously, some local school districts have accomplished changes without resorting to outside funding. It is our contention, however, that the programs embodied in the large majority of successful Title III projects could not have been generated on the basis of local funds alone.

A major inhibitor of local district program innovation is lack of adequate uncommitted resources. Resource distribution within a local school system tends to be determined incrementally. That is, the inertia of decisions made in previous years and the interest group pressures from within and without the system tend to "lock in" expenditure patterns. It is a rare school district superintendent and board of education which can fend off interest group pressures and cut through the crusts of custom to the point of being able to examine the school budget from ground zero, completely reassessing all expenditure patterns. Rather, the more typical procedure is to make decisions only at the "margin," only where new funds will be spent. Thus the only "free" money in the system is "new" money, money which represents an increment in revenue over the previous budget.

Annual revenue increases for the majority of school districts tend to be on the order of 5 or 10 per cent per year. Were this money really free — if it could be spent on new programs — then it is conceivable that local districts could themselves afford some of the innovations which

now depend upon outside assistance such as Title III. In fact, however these increments and the budget bases to which they are added, are usually spoken for in advance. Aside from funds which are needed to compensate for the almost inevitable creep of inflation, the major portion of most new school revenues becomes earmarked for salary increases for employees in existing programs. Public sector budget decisions, even local school district budgets, are made in a political arena and are subject to other than "rational" influences. In many school districts the most highly organized and vocal interest group is composed of the district's employees. They frequently speak first and loudest for a "fair" share of new money. Those voices which speak out for new programs seldom can muster equal political muscle. And the recent rise of teacher "militancy" has done little to bolster the voice for new programs.

Title III's advantage is not only that it provides a lump sum increment of sufficient magnitude to enable a major new program innovation, but also that this sum is earmarked for *new programs*. It is money which is moderately well insulated from the more selfish pressures of some local interests. It is money which must go for something new rather than for more of the same. It is money which provides local school districts with a constituency supportive of change.

Summary

In this chapter we have attempted to demonstrate that Title III funds have served to stimulate change along several significant educational dimensions. Though it is not possible to claim that the legislation has led to dramatic, across-the-board increases in the achievement levels of American students, many of the necessary foundations for such increases have been laid. The new approaches in instruction, curriculum, regional cooperation, utilization of technology, evaluation, and special education described in this chapter are examples of the many needed changes which can be achieved. Moreover, perhaps more importantly, Title III has demonstrated an ability to provide performance incentives for capable persons. We have argued that the likelihood of such changes coming about in the absence of outside funding is not great; revenue increments normally available to local school districts are insufficient to create the "critical resource mass" needed to inaugurate a major program innovation. Title III makes sufficient resources possible and insulates those resources from selfish spokesmen for the status quo.

CHAPTER IV

Structural Correlates of Success and Failure

In order to analyze somewhat more systematically the characteristics associated with projects judged by our observers to be successful and those which were rated as something less than successful we analyzed the 60 projects visited on the basis of 26 variables. The computer program used in this process (BCTRY Cluster Analysis) initially constructs a correlation matrix of the characteristics involved (26 x 26) and then makes repeated passes through the matrix in search of dimension of communality. The result is the clustering together of characteristics which have the highest intercorrelations. This technique enabled us to construct a kind of "profile" of those characteristics associated with "successful" and "unsuccessful" projects.

The relatively small number of projects visited somewhat hampered statistical analyses of project characteristics. In addition, we wish to remind the reader that the conclusions may not clearly apply to all Title III projects, just those visited by our observers. Given these cautions, however, we think the following profiles of success and failure will be of interest to those responsible for making decisions about Title III programs.

Profiles of Success and Failure

The most important cluster of characteristics centers around the dimensions of the *number of individuals served by the project* and the *amount of federal funds involved.* Projects with smaller target groups tended to be more frequently associated with the rating "successful" than did large target group projects (the mean for large groups was 83,500 and 36,000 for small groups). The smaller the percentage of minority group individuals in the target group the greater the likelihood that the project would be rated "successful." This is true even when the project spends more on minority group individuals than upon whites. A possible explanation for the last described phenomeon is that the "unsuccessful" projects serving large minority group target-populations tended to have "exemplary" type programs. The few projects with large minority group target-populations which were rated as "successful" tended to be "innovative" in nature. The inference we draw is that, whereas white children may appear to benefit from exemplary programs, a new approach is necessary if the project is to achieve success with minority group children.

In addition to funds, and ethnic factors, "success" tended to be associated with projects which enjoyed better than average physical facilities, had consulted with other community agencies in planning the project, and sought information from outside sources prior to and during the operation of the project.

In contrast to the above, "unsuccessful" projects tended to be those with large groups of target individuals, less federal dollars per target individual, less than adequate physical facilities, and with less than the average amount of consultation with community groups and outside experts. The overall impression being that "unsuccessful" projects tended to have "short changed" their project objectives by attempting to spread their program and their resources over too many target individuals.

A Discussion of Failure

In the preceding section of this chapter we describe some correlates of Title III project success and failure. In Chapter III we described in detail some of the areas in which projects have been successful. In the remainder of this chapter we wish to explore more fully some of the root causes of failure as reported by our team of observers.

At the outset we should say from our observations, failure of Title III projects cannot be attributed to interference in project operations by the Office of Education. The Office may have distributed its funds under a poor time schedule, it may have underfunded some projects, and it may have approved some "weak" projects, but once the Title III grant was made, the Office appeared to act like a true foundation, that is, it kept its hands off the operation of the project. Now, let us consider some of the more specific difficulties we observed.

(1) Problems arose in some projects from *spreading resources too thinly*. In one case, a project was extremely underfunded. The work was left to one man who had meager facilities where a staff of a dozen, together with rather substantial investment in new physical plant, was called for. Either the objectives should have been scaled down or the money scaled up.

Another manifestation of the thin resource problem concerns geographic dispersion. Especially in rural regions, the geographic areas served by a project were sometimes so large that the outlying parts were discriminated against in service or the staff was exhausted and overworked by travel.

Yet a third form of the problem was observed in these cases where an effort was being made to serve too many clients. When a science museum

was established, for example, it seemed necessary in some projects that all children in the district attend at least once. An attendance head count was assumed to represent accomplishment. When children are pushed through for a few minutes of exposure, both students and teachers are either frustrated, bored, or antagonized. Similarly, in some inservice training projects, an effort was made to serve so many teachers that hardly any received benefit. It is essential in all projects to assess objectives and resources realistically and to establish a program which is consistent with both.

(2) A second common shortcoming we observed was *poor project administration.* In some instances, the local authorities found themselves in conflict with state authorities over whether a given project was possible to implement within state laws regarding the safety of students. In other cases the person who developed the idea of the project and who thought himself capable of running it found himself subservient to a traditionally-oriented school principal who had been given direction of the activity by some higher level administrator. In other cases, project directors had no budgetary control nor, indeed, did their governing boards; control of their money having been retained by the regular local administration. Lastly, local units of administration were sometimes pushed into tasks that did not fit into the administrative structure and could not be made to fit. In one instance a county unit of administration found itself trying to exercise control over programs — and the design of programs — in a constituent large city. The county unit had previously dealt only with smaller constituent districts, and its entry into the large city system was regarded by the latter as an undue interference.

(3) A third common cause of failure was *inadequacy of the ideas underlying the project;* they were not good enough to stage. Related is the situation where the actual commitment of staff to the project was not very high. Both of these problems appear to be tied to the fact (a) that Title III projects are initiated and administered locally and (b) that local education authorities in the United States show great variations in quality.

(4) A fourth observed problem in Title III implementation stemmed from one of the program's chief strengths. Title III has brought "new people with new ideas" into the education service. In some cases *the regular staff was not ready to accept either the new people or the new ideas.* In these cases the Title III group was held "in Coventry," to the loss, we think, of educational improvement. Even if the new approaches were not good, they should have had a fair test. In the meantime, the view that it is pointless to try to change educational practices is reinforced.

A variation of this problem occurred when local district Title III personnel began to enter the university to conduct courses for teachers, ordinarily on a part-time basis. Regular university staff sometimes resented their intrusion and displayed a crippling lack of cooperation.

(5) A fifth common cause of failure was the *lack of appropriate staff* to carry on the project. On balance, our observers reported the staff of the Title III projects visited were far more exciting than the general run of educators. Nevertheless, in many instances an upgrading of technical qualifications and leaderships skills would have greatly expanded the output of the project. We are not referring here to traditional qualifications. One of the advantages of Title III is that staff can be hired from outside the limits of traditional state professional credentials for the length of the project, the Orff-Schulwerk specialists in the California Music project, for example. This opportunity to explore new patterns of technical and professional contributions to education should not be ignored. The special status of Title III projects also offers an unusual opportunity to recruite young teachers to temporary positions of specialization and responsibility outside rigid promotion regulations. Their vigor and enthusiasm can often add stimulation and vitality to the creative activities of Title III programs.

Nonetheless, in our sample there were many more successes than failures. As has been indicated (Table 1.9, p. 8) 65% or 39 of the sixty projects visited were evaluated by our observers as outstanding successes. Forty-seven projects were sufficiently strong that our observers considered them to have had some favorable effects on local services. In 39 projects there was evidence that the inservice training component was productive (and, as will be argued in the next chapter, a crucial focus in the improvements of American schools should be the added professional development of classroom teachers). In 19 cases, quantitative assessment of the projects' effect on student performance was underway. In 29 cases, local money had been pledged to continue the project when federal funds are withdrawn. In our view these are all indications of a general incidence of success.

CHAPTER V

An Optimum Role for Title III

As we mentioned in Chapter I, the shift in authority from the federal to the state level provides an excellent opportunity to consider anew the proper role of Title III grants. In this chapter we describe those features of American education which we believe are most in need of attention through the Title III approach.

Nine Needed Changes in our Educational System

What are the urgent requirements for improvement in American education? In our view, they are the following:

1. *Systematic Planning and Evaluation.* Education is a huge and vitally important activity. Compared with schools in other nations, ours have been lavishly financed. Perhaps for this reason, school administrators, state and local, have not felt the necessity to develop sophisticated planning processes. It is still a rare thing in American education when the objectives of a local school authority are laid out in operational terms for, say, the next five-year period. It is even more rare to find rigorous analysis of alternative programs, analysis that allows us to make choices so that the set of programs finally selected takes us farthest toward our objectives with the money we have to spend. Yet, the difficulties we have met, for example, in trying to help disadvantaged students raise the level of their school performance, indicate that conventional processes of decision making in education are unable to lead us to higher levels of productivity quickly. This is true even in areas where the federal government has identified a priority of great national concern and when it provides substantial funding of new programs. Indeed, several recent studies have indicated that simply spending more money in the same old ways produces practically no measurable returns in school performance.[1]

We conclude that education, in order to claim its due share of resources in a time when competition for the public dollar grows more and more severe, needs to adopt more systematic planning processes. The model which presently appears most applicable is the planning-programming-

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[1] Jesse Burkhead, *Input and Output in Large City High Schools*, Syracuse, Syracuse University Press, 1967; James S. Coleman, *et al., Equality of Educational Opportunity*, Washington, D.C., Government Printing Office, 1966; Charles S. Benson, *et al., State and Local Fiscal Relationships in Public Education in California*, Sacramento, State Senate, 1965.

budgeting approach. The basic requirements for such an approach are (a) an information system, and (b) skilled analysts.[2]

2. *Preparation of Personnel.* The current most important element in the education production function is the teacher. This has long been a contention of conventional wisdom, and there is now an increasing amount of quantitative evidence to support the point.[3] Yet, the preservice training of teachers has not been an activity in which our colleges and universities would take great pride. One difficulty is commitment. Since many teachers work only a few years at their trade — and since many students in education programs enter these programs *expecting* to work only a few years as a teacher — it is hard for the student, the education professor, the university, and, back of the university, the larger society, to concentrate substantial amounts of resources on the preparation for teaching service. The most important element in the education production function, the teacher, then is an individual who is likely to have had a low quality of training for his job.

Inservice education of teachers, the other route to professional development, has never been systematically organized nor well financed. Responsibility for programs is shared by universities and school districts. School districts have not thought well enough of the calibre of inservice training to devote any large share of their budgets to it, either directly by purchasing the services of universities, or indirectly by establishing training differentials in teachers' salary schedules comparable to seniority differentials. The university, in turn, has not thought well enough of lower education in general to reconsider, seriously, its inservice programs for teachers. We conclude that a major need in American education is professional development of teachers.

3. *Individualization of Instruction.* Differences that exist among children due to their genetic and environmental background require that the teacher know the needs of the individual student if the education process is to be highly effective. This has long been a tenet of American education. Why do we find a mounting concern, then, about individualization of instruction? We believe there are three reasons. First, teachers are asked to pay special heed to the learning achievement of certain students, in particular, ghetto youth, whose environmental circumstances differ sharply from those of their teacher. Second, districts are being asked to move ahead with plans for racial integration in schools and classrooms, and individualization of

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[2] For a discussion of planning, programming, and budgeting in education, see State Committee on Public Education, *Citizens for the 21st Century*, Part Two, Sacramento, State Board of Education, 1968.

[3] Burkhead, Coleman, and Benson, *op. cit.*

instruction is seen as a means of protecting the learning opportunities of middle-class youth. Third, new flexibility in scheduling, together with new educational technology, makes the attainment of a great advance in individualization of instruction a practical goal.

4. *The Massing of Resources under Metropolitan and Regional Cooperation.* It is commonly assumed in elementary-secondary education that the potential for economies of scale is relatively limited. Once an elementary school is large enough to have a class of conventional size for each year of its program, no further economies of scale accrue. Once a high school is large enough to have standard-size classes in the common subjects, no further economies have appeared possible. Education is unusual in this regaard. Even in other segments of the public sector, one finds evidence of continued efforts to explore possible economies of scale. In terms of having a book collection that serves a variety of tastes, the best public library is the biggest. In fact, the public libraries of our great cities *are* regarded as superior to suburban libraries. But the biggest school district in a given geographic area is not necessarily regarded as the best. The failure to exploit possible economies of scale, it would seem, is one reason that our big city school districts are suffering.

A few important applications of the economy-of-scale principle do exist; some have turned up in Title III projects. Highly specialized secondary school courses (e.g. archeology, astronomy, Russian, etc.) have been offered in certain institutions which either have sufficient enrollment at their own or can combine with other schools to create sufficient enrollment to make the courses economical. At the elementary level, innovative practices requiring highly trained and specialized persons (e.g., the Orff-Schulwerk music project) have been made available to neighboring districts by the sponsoring district, thereby enabling specialized persons to be employed full-time in tasks that call on their highest abilities.

Further exploration of such economies seems appropriate. Model schools could be constructed in metropolitan areas and they could be so superbly staffed and equipped that they might truly explore the frontiers of educational productivity. They might also serve a teacher training function for the surrounding area. Indeed in many cases the extra costs of the model program could well be justified by the teacher training function of the operation. Moreover, this type of inservice training of teachers might well be better than what can be done in universities, which are relatively isolated from school operations. These are examples of economies of scale in education; there could be many others. The exploitation of economies of scale may be a chief avenue to educational progress in our metropolitan areas.

5. *Racial Integration*

The subject of racial integration has been one of the most controversial subjects ever faced by American education. Although efforts to enforce civil rights legislation continue, the realities of residential patterns have added new roadblocks to those arising from the racial fears of our society. Pressure for integrated education has in many instances been diverted into pressure for equal educational opportunity through special compensatory programs.[4]

Extensive investments in compensatory programs are beginning to show benefits among poor minority groups, although at a heavy financial cost. For example in California there are more than 100 programs for intensive instruction in reading in the primary grades that have succeeded in bringing disadvantaged children up to the learning growth rate of middleclass children.[5] On the average these programs cost $250 to $300 per pupil per year. Prevention of the disadvantaged child's back-sliding steadily in reading grade placement requires an extra expenditure of about one-half of the total operating expenditure per pupil. Similarly, disadvantaged youth appear to respond well to computer-assisted instruction. CAI, however appears to cost about $600 per pupil per year when the level of services is set at one hour per day per student for 150 days in the academic year, provided CAI can be established widely enough to reap economies of scale. Hopefully other techniques of compensatory education will be developed which are not so costly.

We question, however, whether compensatory education can ever prove to have as low a cost benefit ratio as integration. Although surrounded by controversy, the Coleman Report and the study of the U.S. Commission on Civil Rights, *Racial Isolation in the Public Schools*, both present evidence that Negro youth, especially those from poor households, appear to do better work when they attend racially integrated schools than when they do not. And the costs appear to be much lower. For example, in Berkeley, California, "excess" transportation costs incurred to facilitate racial integration amount to $18.40 per pupil per year. Assuming that $100 per disadvantaged student was spent to provide greater individualization of instruction in the newly integrated schools than had existed in the schools previously, the integration approach in most areas might cost as little as $125 per disadvantaged child. This figure is noticeably less than the price tag of the known successes in compensatory education to date.

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[4] For a summary and critique of compensatory education program results, see *Human Investment Programs: Elementary and Secondary Education*, U.S. Department of Health, Education and Welfare, Washington, 1966.

[5] See the 1968 Report of the Division of Compensatory Education of the California State Department of Education.

Focusing on cognative achievement and cost/benefit analysis of integrated education versus compensatory education is, of course, only a part of the problem. Compensatory education may be the most viable approach at the moment in many areas for meeting the cognative needs of poor students, particularly Negroes, Puerto Ricans, and Mexican-Americans. We applaud the efforts and achievements being made in this area.

In the long run, however, we must also be concerned for the achievement of an integrated society. Indeed, despite the statements of radical elements on both sides of the racial strife in our society, it is evident that the great majority of Americans from all racial and ethnic groups want to see an integrated American society. There continues, therefore, a great need for the exploration of quality racially and socially integrated learning experiences.

There is a need to explore methods for facilitating educational and cultural integration among students in the host of schools across the country where racial and social integration is presently a reality in numbers only. In areas where massive integration remains difficult to achieve, other imaginative approaches need to be explored to help students bridge the racial and social gaps in our society. One approach might be "cross-age teaching," (e.g. having 9th graders teach 7th graders, or elementary students.) A few experiments across the country in this area are showing valuable results. Both the student teachers and the pupils have registered sharp increases in measured learning. It might be possible to experiment with cross-age teaching in which the student-teacher and the students are of different racial or social origins. Similar activities might be explored with various kinds of extra-curricular activities, where the learnings of children from racially and socially diverse backgrounds can be complementary.

6. *Pre-School Programs*

From the work of Benjamin Bloom and others, we have evidence that early learning affects the entire educational career of a person. It is possible, indeed, that for certain kinds of learnings we are now wasting the best years of a person's life by deferring school entry to the 5th or 6th year of age. Title III would seem to be an ideal vehicle for exploration of the conditions conducive to early learning and for experimentation with different kinds of pre-kindergarten programs. The finding that learning is sequential *and* cumulative, on the one hand, and the finding that remedial programs are both costly and ineffective, on the other points to the possibility that experimental pre-kindergarten education programs are a fruitful investment area for Title III funds in terms of cost-effectiveness.

7. *Education of the Gifted*

One of the functions of an educational system is to discover talent and to develop it. Unless in each rising generation there is singled out a cadre of gifted individuals and unless these individuals are shown how to develop and use their talents, our productive powers and our arts will languish.

Yet, our educational system has not done a great deal to identify and develop talent. Merely to identify students for college entrance and to help them get over the hurdle of college admissions does not represent a serious search for talent in this country. Moreover, there is no strong effort to discover gifted young students in ghetto areas.

Title III would appear to be a heaven-sent opportunity to build new programs for gifted students. The fact that the funds are federal means that local money is not diverted from the ordinary students. We observed many projects in our study in science and in the arts that might appeal more to the gifted than to the ordinary student, but a primary problem was that these activities were not specifically tailored to the gifted. Hence, their stimulus value was blunted by the fact that the talented student had to wait through presentations on topics he already understood. Further, the failure to distinguish among different types of students was a general criticism of Title III projects; community groups and parents interviewed by our observers often stated that services were spread too thinly and too indiscriminately among students whose interests and aptitudes were obviously quite different. Again, we suggest that the use of Title III funds to design and implement educational and extra-curricular programs for exceptionally talented students would be an investment which would yield a high rate of return in terms both of individual fulfillment and social benefit.

8. *Community Involvement*

It is generally held that the motivation of a student is an important factor in determining his academic performance. Also, there is agreement that the motivation of a student is likely to be stronger when his parents and his neighbors think well of their local schools and of what they are trying to accomplish. Finally, it is a point of some consensus that community attitudes toward schools are improved when members of the attendance area are involved in the definition, the design, and, occasionally, the implementation of school programs.[6]

We found that nine of the projects in our sample could be said to call for some degree of community involvement as an objective. However,

[6] This was a major point of the proposals in the Bundy report on the New York City schools.

we did not visit a single project in which the chief aim was to test experimentally different modes of establishing favorable interactions between the community and the schools. Moreover, records of the U.S. Office of Education suggests that community involvement is not an area which attracts many proposals. Our feeling is that it is an area worthy of more systematic attention with Title III funds than appears to have been the case up to now.

9. *Vocational Education*

Since 1917 the federal government has expressed its interest in education for occupational development by providing grants for vocational education. Yet, today well-paid technical jobs go begging while our central cities are populated by the unemployed. Moreover, vocational programs in most parts of the country have failed to obtain parity of esteem with other forms of secondary and junior college education.

Though we recognize that vocational programs are supported by other federal acts than ESEA and though we recognize also that the federal interest in vocational education is reflected in the continuing effort to revise and improve the legislation that bears upon education for work (e.g., The Vocational Education Act of 1968), we believe that Title III money could well be spent on experimental programs that are complementary to existing vocational courses. The same Title III projects could deal with matters such as the selection of students for vocational programs, improvement of the image of vocational education, and strengthening of the planning processes in the field of education for work.

Summary

We have suggested nine components of American education which we believe are most in need of attention through the Title III approach: systematic planning and evaluation, preparation of personnel, individualization of instruction, the massing of resources under metropolitan and regional cooperation, racial integration, pre-school programs, education of the gifted, community involvement, and vocational education. Some of these components have been explored well in the Title III projects visited for this study, others are being employed in projects which were not visited. Each of the components offers potential for improving American education, and we would urge extensive investment in projects which incorporate them.

CHAPTER VI

The Future of Title III

Necessary Resources

One of the unique features of Title III is its focus upon applied r-search and development, areas heretofore generally ignored in educatio. In industry, only 4.2 percent of R & D funds are used for basic researcl; 18.8 percent is used for applied research, and 77 percent is expended fr development.[1] In education, on the other hand, practically all money devotd to R & D has been put into long-term investigations that have not bore immediately upon work in the classroom. Title III is the major exceptio: it can be used for applied research, and more importantly for developmet at the local level.

Despite its importance as a major national investment in R & D,it remains a modest investment at best — less than one-quarter of one percat of the total national school budget. When contrasted with the five to tn percent average investment of American industry, this is pitifully sml. On the basis of the apparent success and future promise of Title III, ·e urge the federal government to raise its level of funding to a point whce Title III grants equal at least five percent of the national school expeni-ture.[2]

The Local Challenge of Title III

As we see it, the strength of Title III lies in its ability to stimulte local initiative and innovation. Inevitably as our nation becomes mre crowded and educational methodology becomes more complex, we are seeig a tendency to concentrate decision making at higher governmental levis. It is important to have a vehicle under which the resevoir of local initiatve can continue to be tapped and replenished. New ideas and good ideasdo rise to the surface in local school districts. More importantly, in the essn-tial area of development, it is at the level of local school districts that sg-nificant adaption and adoption must take place. As education becores more centralized and mechanized, this source of new ideas and this leel of development must not be ignored. Title III funds are a reward nd

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[1] Committee on Economic Development, *Innovation in Education: New Directionsfor the American School*, 477 Madison Ave., New York, 1968, page 28 and following.

[2] An immediate step could be taken in this direction by raising the appropriatio to the level of authorization. The appropriation for FY 1969 is $164,876,000, less tan one third of the $527,875,000 authorized in the Elementary and Secondary Educaion Act for that year.

stimulation for locally generated activities. They must continue to represent the incentive link between higher governmental agencies and local initiative.

In this line, we suggest that in the administration of Title III a distinction be drawn between large innovative and exemplary projects and smaller "risk-type" projects. The dividing line might be drawn at $100,000 for projects arising from local efforts to develop new ideas. Since many local school districts lack planning staffs, funds should continue to be made available for planning such projects. We suggest that roughly 20 to 25 percent of Title III funds be allocated to such locally initiated "risk-type" projects.

One of the significant accomplishments of Title III has been to draw neighboring school districts together into cooperative programs. To date an extensive amount appears to have been spent on planning these activities within the context of supplementary education centers. Primary emphasis should now be placed upon experimental and operational projects. Certainly there is great potential in the exploration of the economies of scale which can be achieved through this type of inter-district cooperation. We would suggest that roughly 20 to 25 percent of Title III funds be allocated to the support of this type of locally initiated cooperative program.

The State Challenge of Title III

Leadership by state governments will be required if American education is to move ahead on the nine fronts discussed in the previous chapter: systematic planning, professional development of teachers, individualization of instruction, metropolitan massing of resources, racial desegregation, preschool programs, education of the gifted, community involvement, and vocational education. For example, systematic planning calls for a statewide information system and the creation of a well-trained group of analysts at the state government level. The professional development of teachers requires state funding and state administration of federal funds under the Educational Professional Development Act and other programs. Individualization of instruction, insofar as it requires the new technology, waits upon the development of state-wide systems of computer-assisted instruction. Metropolitan massing of resources calls for state leadership and incentives, including the liberalization of professional certification requirement, and joint power agreements.

While Title III should not continue as the only or even the major resource available to state governments for the development of these efforts, it does have a unique role to play. With its locally oriented project approach, Title III provides an incentive for state and local educators to

work cooperatively in building networks and exploring state-wide development programs. We recommend that roughly 30 to 40 percent of Title III funds be employed in the development of experimental and innovative projects of substantial size and state-wide impact.

The Federal Challenge of Title III

One of the problems in the administration of Title III to date has been that project staffs have had difficulty in establishing face-to-face contact with the staffs of similarly oriented projects around the nation. This was a repeated complaint from the Title III projects observed in this study. A need exists for a series of annual conferences, focusing perhaps on specific areas of research and development. There is also a need to enhance general communication regarding Title III; the results of successful projects should be more widely and consistently disseminated than is presently the case. This communications and dissemination role would seem to fall ideally into the domain of a centralized authority, namely the U.S. Office of Education.

Furthermore, while the fragmentation of Title III's administration into fifty organization units will place decision making closer to local need, it also runs the considerable risk of neglecting national, supra-state, needs. An example of this is the currently funded Central Cities Project under which some thirty major cities have been given Title III grants to explore cooperatively innovative solutions to our nation's urban educational dilemma. It is realistic to assume also that the development of educational technology such as computer networks will require nation-wide stimulation and coordination. Accordingly we recommend that steps be taken to retain approximately 15 to 20 percent of appropriated Title III funds for administration at the federal level. These funds could be used for the coordination and communication mentioned above and for funding innovative ideas which appear to be of a peculiar national significance.

Potential Problems in the State Administration of Title III

Throughout our study we have encountered anxiety regarding the transfer of administrative responsibility for Title III grants to state departments of education. There is concern that funds may be merely apportioned among school districts so that all will get their turn, with little regard for quality. There is also concern that states may use Title III to expand their effective control over educational activities at the expense of local school districts. There is some justification for this anxiety.[3]

[3] An empirical study of state educational agencies which specifies some of their shortcommings in detail is reported in *Strengthening State Departments of Education*, R. F. Campbell, G. E. Stroufe, and D. H. Layton (eds.), Midwest Administrative Center, The University of Chicago, 1967.

A primary historical concern of state educational agencies has been the equalization of local educational resources. While this concern for resource equality has its advantages, it is not necessarily consistent with the R & D role of Title III, whose developmental intent requires the lumping of Title III resources on school districts which are exploring new procedures. Furthermore, Title III provides an opportunity to explore a relatively new concept in education, namely that qualitative improvements in educational achievement are most likely to result from the concentration of a "critical mass" of educational resources, and that the level and nature of this "critical mass" may vary considerably from child to child and from district to district. This new concept that the equalization of educational opportunity requires variations in the allocation of resources is somewhat at odds with guaranteeing equal levels of expenditures for each child, but it may be essential if we are to come to grips with variety of educational needs in our society.

Another basis for concern regarding state educational agencies arises from their traditional role as a monitor of minimal standards. All too frequently this monitoring has focused upon the availability of minimal educational services, not on the assurance of minimal patterns of achievement. That is to say, states have been concerned with process variables such as ensuring that teachers employed by districts, buildings in which children are schooled, and texts which children read, all meet certain minimal standards. Only a few state agencies have successfully attempted to assess whether or not children are learning. Many feel that this concern with process rather than with product has failed to stimulate educational quality, the purpose of Title III.

Other concerns also have been expressed. There is the question of whether state educational agencies with their traditional close client relationship with school districts can conduct "hard-nosed" evaluations of programs funded under their direct auspices. In effect, this question could have been raised while the program was administered by the U.S. Office of Education, and is an argument for outside evaluation of Title III programs by third parties. Yet another concern arises from the traditional weaknesses of personnel in state education agencies. Low salaries and bureaucratic considerations have reputably limited the recruitment of outstanding educators to state positions. Certainly the influx of funds and other support under Title V of the Elementary and Secondary Education Act may have had a beneficial impact on state agencies. Administrative funds authorized under the new Title III amendments and the very challenge of the administration of Title III itself should also have a beneficial impact upon state education agencies.

We cannot attest to the validity of all these concerns. Our study of Title III has not included a review of the activities of state education agencies. Nevertheless, the fact that these anxieties exist requires that the concerns be considered and assssed in each state as mechanisms and policies for the administration of Title III are developed.

The significant fact is that the primary responsibility for one of the major research and development efforts in the entire history of American education now rests with the states. Not everyone agrees that existing structures are capable of rejuvenating themselves. The fact that available funds represent a mere one-half of one percent of total investment lends some support to concern that the new money may be lost under the impact of traditional concerns and procedures. New tasks may call for new types of operations.

The recent report, *Innovation in Education*, by the Committee for Economic Development has proposed the creation of a national Commission on Research, Innovation, and Evaluation in Education. They suggest that it meet the following criteria:[4]

> 1) independence of both the educational bureaucracy and of government; 2) prestige and influence, which calls for members of competence and distinction; and 3) effectiveness, which means that it must command talent of a high order and be capable of acquiring the funds necessary for its work.

We heartily concur with this recommendation for a new structure at the national level. We also suggest that new structures at the state level may well be in order. The transfer of Title III to the states offers a unique opportunity for legislative leaders to consider carefully the best mechanism for stimulating educational improvement within their states.

The state legislature in California has recently enacted legislation designed to ensure a strong leadership role on the part of the Title III Advisory Council in that state. It gives the group the status of a public commission, with authority to directly approve Title III programs. The authors of this study assisted in the initial drafting of this legislation and gave their strong support to it. We felt that a public corporation charged with the administration of Title III, by being outside the range of civil service codes and public employee status, might better be able to avoid some of the less desirable features of governmental bureaucracies. In particular, we felt that such an arrangement would (1) avoid day-to-day political pressure to disperse Title III funds in accord with criteria other than those associated with qualitative improvements in education, (2) minimize the shortcomings of state education agencies, (3) retain a high degree of sensitivity to the long-range public interest, and (4) assure

[4] *Op. Ct.:* p. 69 ff.

honest use of public funds. In the form in which the legislation has been enacted, we must, however, express considerably less enthusiasm. In particular we are distressed with the stipulation that major priority be given to programs focusing specifically on language development and mathmatics. Both are important areas, but we feel that priorities regarding Title III should not be legislated, lest the broad innovative considerations be eroded by the concerns of established pressure groups.

The Role of State Title III Advisory Councils

From the legislation transferring Title III to state administration, the U.S. Office of Education is developing regulations and guidelines for Title III State Plans. These guidelines call for the establishment of State Title III Advisory Councils with broad representation from concerned groups throughout the state. It is anticipated that these advisory councils will have a major impact upon state policies regarding Title III priorities and procedures for reviewing project applications.

If the impact is to be felt, it is essential that councils include a majority of non-educators. Efforts should be made to recruit the support of state leaders in business, industry and the professions whose status will lend prestige and credibility to decisions of the councils. This is an opportunity both to educate leaders to the problems of education and to tap in on their creative thinking and influence.

From the activities of past and present advisory groups of this type established at the local, state and federal level, it is possible to anticipate that the role of State Title III Advisory Councils will vary from passive support of activities established by state agencies to active sponsorship of new policies and programs. Advisory groups operate under several limitations. Members meet at most for several days over the span of a year, and both attendance and membership fluctuates. As a result the group is generally dependent upon fulltime administrators in government agencies for information, with little opportunity to review programs and policies in depth. To expand the potential for impact on the part of the Title III Advisory Councils, the Guidelines provide that an executive secretary and other fulltime staff members may be employed by the Council directly. This is the procedure recently adopted by the National Title III Advisory Council. We strongly urge that State Title III Advisory Councils avail themselves of this opportunity for indepedent and continuing assistance in carrying out their important role.

Additional Administrative Considerations

Regardless of the exact administrative arrangements settled upon, substantial consideration needs to be given to the coordination of Title III

programs with other efforts at the local, state and federal levels. The chances are strong that advisory councils for other federally funded sectors of education such as vocational education, education of the disadvantaged, special education, will begin to proliferate and problems of coordination will be staggering and possibly stultifying. A school district which is attempting to put together an integrated program package using funds from a variety of federal authorities ought not be overwhelmed by the need to have its proposals approved in piecemeal fashion by three, four, five or more state advisory groups and administrative agencies. It is our hope that each state will give substantial thought to establishing procedures which will encourage the coordinated use of federal, state and local funds, and stimulate package proposals.

It might be productive for a state to use a portion of its Title III funds for local planning, both inter-district and intra-district, focusing on the wisest use of funds from all sources. Under such circumstances Title III money might provide a great deal of leverage for changing the educational services offered in a local school district or group of districts. The chain of change would be that Title III funds, although comparatively small in quantity, would be used to plan for the deployment of all federal funds available to a district, (a much larger amount of money) which in turn might affect substantially the manner in which local and state funds were used in the district.

In order to gain the benefits of such packaged planning and inter-program coordination, those responsible in each state for the development of administrative arrangements for Title III need to be conscious of and committed to the part that Title III can play in affecting the total educational scheme. Implicit in this view is the belief that while the energy and many of the ideas for improving education must come from the local level, those ideas and that energy will go farther if a state education agency provides guidance and coordination in its administration of Title III funds.

We would also recommend changes in the procedures for selecting projects. To date, proposed projects have been selected on the basis of information provided in formal proposals, submitted in the name of a school district. Little if any consideration is given to qualifications of the staff and consultants who will carry on the venture. The formal written proposal process has become a standard procedure for letting government contracts. Within the domain of the development of facilities and equipment, the project proposal system has proven generally effective. But the output from this type of development can be readily assessed quantitatively and qualitatively. Within the domain of projects for the development of methods

to expand human resources, including educational activities, output is much more difficult to evaluate.

Nonprofit foundations, which have been the pace setters in the investment in educational development, place their risks on men, not solely on formal proposals. As they evaluate the objectives and procedures of the proposal, they look at the men who are to supervise the projects, and assess their technical and personal potential for success. Most government agencies supporting grants in basic research, particularly in health, education, and welfare, have similarly come to place great import on staff qualifications in their selection processes.

The assessment of staff potential should be given high priority in the selection of Title III projects. Our study has shown staff competency to be one of the major problems in Title III projects. The present system permits proposals to be developed by individuals who may not in fact carry significant responsibility for the project when funded. Attention should focus on the proposed project director and/or supervisor and the senior consultants. Attention should be given not only to academic background and experience, but also to indications of imagination, and leadership, and the potential for growth. These are not easy areas to assess, but they are vital to the success of a project. The geographic focus of State Title III Advisory Committees makes this personnel concern more practical than possible under U.S.O.E. administration. Their staffs might even assist local districts in recruiting leaderships for projects. Whatever the procedure, the vital human element must be considered in the administration of Title III funds.

CHAPTER VII

Summary

This study has concerned itself with the ability of Title III to encourage local school authorities to accomplish badly needed educational reforms. Our observations in 60 projects located in 30 states provide us with rather dramatic evidence of ESEA Title III's ability to perform this task successfully.

The reports filed by our observers suggest that Title III projects have been particularly effective in encouraging (1) experimentation with new instructional modes and curricula formats, (2) development and adoption of useful new educational technology, (3) initiation of systematic resource allocation, (4) cooperation and resource sharing among local school districts, (5) establishment of exemplary special education programs, and (6) the provision of badly needed incentives to persons in education with extraordinary talents. In addition, we have demonstrated that shortages of uncommitted revenues and the nature of the budgetary process in local school districts seriously restrain local educational authorities from achieving these successes in the absence of Title III grants.

In order to maximize Title III's successes and minimize its shortcomings in the future, we have been led to three levels of recommendation: (1) practical advice, some obvious, some not so obvious, for local educational authorities concerned with the operation of Title III projects, (2) suggestions of a more general nature regarding state-level administration of Title III, and (3) recommendations for a modified federal role in Title III's operation.

For those concerned with local-level operation of Title III projects, we cannot overemphasize the importance of thorough planning, plentiful numbers of properly prepared and dedicated personnel, and adequate physical facilities. Absence or shortage of one or a combination of these three attributes was the primary factor in those projects which appeared to be less than complete successes. An additional caveat concerns the distribution of project resources. Success seems to follow the creation of a "critical mass." To spread funds, personnel, equipment, or administrative energies over too many project components, service recipients, or square miles is to risk failure, no matter how powerful the Title III idea involved.

At the important level of state administration we have strongly urged State Title III Advisory Councils to take an active part in administering

the program, aided by an independent staff which can support their formulation of policies and priorities and their supervision of independent, "hard-nosed" evaluation procedures. We have further indicated areas essential to educational progress where state-wide planning by state education agencies can be supported and stimulated with the support of Title III funds.

For the federal government we have suggested an expanded dissemination role designed to facilitate both formal and informal communications among all elements in the Title III venture — project directors, state coordinators, state advisory council members and their staffs. We see this as an essential leadership responsibility which can set the tone for Title III activities throughout the country. Furthermore, we have suggested revision in the legislation to reserve a percentage of funds at the federal level for support of innovative and exemplary projects with special nation-wide priority.

In conclusion, we wish to reemphasize our positive assessment of Title III. We are struck particularly with its ability to stimulate fruitful change and to encourage the participation of highly qualified persons. To come full circle, Title III appears to represent a badly needed source of new energy for improving education in the United States. Our suggestions are directed at diffusing that energy more widely and effectively throughout the system.

APPENDIX A

Project Visitation Report Guidelines

1. Project number .....
2. Project title .....
3. Project director .....
4. Director's address .....

   .....
5. Tel. area code ..... 6. Tel number .....
7. Project address (if different from the above) .....

   .....
8. Project telephone number .....
9. Date project began .....
10. Name of visitor .....
11. Date(s) visited .....
12. Number of hours spent on visit .....
13. Titles and/or kinds of persons with whom you visited .....

    .....

    .....

    .....

Approximate Numbers of People Interviewed in Project:

..... A — Students

..... B — Project Staff

..... C — Parents

..... D — Teachers

..... E — Board Members

..... F — Advisory Committees, Consultants, and Others (specify)

.....

Whenever possible, a copy of the project's proposal should be obtained and attached to this report.

14. What are the project's objectives? What outcomes are expected? What difference is the project expected to make? (In your judgment, are the objectives clear and precise, or are they jumbled and amorphous?)

15. Have the project's objectives been altered over what was originally set forth in the proposal to O.E.? If so, how and why?

16. Are the objectives being met? Is there evidence of progress? What is the nature of such evidence, hearsay or empirical data? (If the latter, obtain a copy or summary statement of the evidence.)

17. For what target group or groups (e.g. pupils, teachers, parents, community, etc.) was the project intended? Does it appear that the intended target group is being served? If not, why not?

18. Estimate the average number of hours per week during which the target group receives services from the project.

19. Who (e.g. teachers, museum staff, local symphony, etc.) delivers the services to the target group?

20. What is the nature of these services?

21. In your opinion, are the services described in the preceding question appropriate for achieving the project's goals? If not, why not?

22. a. Where, physically, do the project's activities take place (e.g. in a renovated store in a central city, in a rural school, in a suburban art gallery, etc.)?
    b. Do the physical facilities appear adequate? If not, why not?

23. a. What is the nature of the project's staff: how many, what positions, what training, what previous experience? (Where possible, obtain biographical data on staff members, especially project administrators and other persons in leadership positions.)
    b. Does the staffing pattern differ from that given in the proposal? If so, explain how.

24. What is the project's budget? How much money and how is it spent? What are the kinds and amounts of salaries paid? What portion of the total budget is for salaries, instructional materials, transportation, rent, etc.? (If possible, obtain a copy of the project's budget.)

25. What is supposed to be innovative or exemplary in this project?

26. What problems have the project staff identified in the program design and activities?

27. Describe any specific problems arising from Title III requirements; i.e. reports, continuation grants, program visits, etc.

28. Did other agencies participate in the planning and operation of this project? If yes, list organization and contribution and also indicate if this assistance was anticipated in the proposal.

29. What evidence is there of participation in the project on the part of teachers and students in nonpublic schools?

30. Is this project related to existing school programs? How?

31. Has this project ever been formally evaluated? If so, by whom? When? By what methods and criteria? (If possible, obtain a copy of the results.)

32. a. Is dissemination of the results provided for by the project? What kind of audience receives material?
    b. Have project officials received relevant information from other projects? If yes, how was the information used?

33. Will this project be continued after federal support terminates? What provision is being made for continued support from local funds? If none, why not?

34. What would be the effect if this project were discontinued?

35. a. Does this project appear to be of national significance?
    b. Does this project appear to be of state or regional significance? Why or why not?

36. In view of the project objectives, how would you rate this project at this time? Check only one and give reasons for your choice.
    ..... Excellent
    ..... Good
    ..... Poor
    ..... Failure

37. Recommendations:
    Please note areas which are weak and should be improved to make the project more successful.

38. Other Comments:

APPENDIX B

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Office of Education

ESEA Title III Funding, FY 1966 through 1968
(FUNDS IN THOUSANDS OF DOLLARS)

Projects begun in:	FY 1966 Actual			FY 1968 Actual			FY 1967 Actual		
	Number	Amount	Average Cost	Number	Amount	Average Cost	Number	Amount	Average Cost
1966:									
Planning	451	$24,576	$54	22	$ 1,608	$ 73	20	$ 1,656	$ 83
Operational	256	21,552	84	485	74,680	154	372	53,738	145
Total	707	46,128	65	507	76,288	150	392	55,394	141
1967:									
Planning				383	19,020	50	39	2,454	63
Operational				502	62,311	124	467	58,770	126
Minigrant				214	4,778	22	4	28	7
Total				1,099	86,109	78	510	61,252	120
1968:									
Planning							72	4,271	59
Operational							509	58,875	116
Minigrant							15	318	21
Total for Grants							596	63,464	108
State Admin. Funds							47*	2,179	
Totals:									
Planning	451	24,576	54	405	20,628	51	131	8,381	64
Operational	256	21,552	84	987	136,991	139	1,348	171,383	127
Minigrant	.....	.....	...	214	4,778	22	19	346	18
Total for Grants	707	46,128	65	1,606	162,397	101	1,498	180,110	120
State Admin. Funds								2,179	
Total Obligations								182,289	

*47 States and Territories received money in FY 1968 for activities of Advisory Council Activity.

TITLE III, ESEA, PROJECTS SUBMITTED, APPROVED AND FUNDS AWARDED IN FISCAL YEAR 1966

	Projects Submitted			Grant Awards			
	Number	Funds Requested	Number Approved 1/	New	Continuations 2/	Total Funds Awarded	State Allocation 3/
TOTALS	2,706	$249,683.5*	1,085	699	8	$46,128.1*	$75,000.0*
Alabama	36	4,315.8	15	7	....	421.5	1,384.9
Alaska	5	523.5	3	3	....	261.8	285.3
Arizona	25	2,644.1	10	7	....	442.2	730.0
Arkansas	35	3,468.9	17	10	....	440.9	847.5
California	237	24,603.2	91	63	1	5,352.6	5,996.4
Colorado	44	2,786.2	22	17	....	598.3	854.1
Connecticut	30	4,015.6	14	10	....	548.1	1,088.7
Delaware	15	979.9	10	4	....	256.2	362.3
Florida	66	7,981.4	28	17	....	1,301.0	2,004.3
Georgia	45	4,767.0	19	10	....	986.1	1,663.2
Hawaii	2	1,540.2	2	1	....	438.2	438.2
Idaho	17	1,268.7	12	10	....	412.0	442.5
Illinois	100	14,209.5	35	21	1	2,168.0	3,609.5
Indiana	119	7,421.3	31	17	....	985.4	1,823.4
Iowa	16	1,544.9	8	3	....	658.4	1,128.4
Kansas	51	2,586.1	19	12	....	743.9	943.2
Kentucky	27	2,057.9	14	10	....	502.0	1,272.4
Louisiana	25	2,729.5	14	9	....	808.0	1,409.9
Maine	44	2,273.0	14	14	....	300.2	530.9
Maryland	33	3,446.4	17	12	....	791.9	1,338.7
Massachusetts	105	8,042.7	37	20	....	1,015.6	1,916.8
Michigan	106	10,388.3	44	24	....	2,157.2	2,977.0
Minnesota	111	5,490.6	36	29	1	1,089.4	1,399.1
Mississippi	20	1,502.0	7	4	....	230.0	1,020.7
Missouri	46	4,094.4	20	11	....	1,119.0	1,633.8
Montana	37	1,158.5	22	16	....	309.1	433.6
Nebraska	21	2,352.0	12	9	....	678.1	689.6
Nevada	5	510.3	3	2	....	319.8	327.9

*Amounts in Thousands.

TITLE III, ESEA, PROJECTS SUBMITTED, APPROVED AND FUNDS AWARDED IN FISCAL YEAR 1966—Continued

	Projects Submitted		Number Approved 1/	Grant Awards		Total Funds Awarded	State Allocation 3/
	Number	Funds Requested		New	Continuations 2/		
New Hampshire	34	2,473.8	14	10	....	326.6	412.9
New Jersey	108	9,849.3	38	29	1	1,679.0	2,327.0
New Mexico	19	1,446.4	10	3	....	116.7	559.3
New York	248	29,738.1	74	48	2	4,510.5	5,831.0
North Carolina	57	4,746.6	20	10	....	453.7	1,863.7
North Dakota	21	1,263.3	10	7	....	223.1	425.6
Ohio	117	10,666.6	45	27	....	2,038.7	3,597.5
Oklahoma	36	3,970.8	17	11	....	682.3	1,009.1
Oregon	70	5,317.1	24	8	....	774.0	825.3
Pennsylvania	147	15,243.2	61	47	....	2,831.8	3,943.4
Rhode Island	40	1,895.8	15	10	1	262.0	488.8
South Carolina	33	2,234.4	14	10	....	187.3	1,100.8
South Dakota	9	803.8	5	....	....	.....	446.0
Tennessee	21	2,637.1	10	6	....	221.5	1,472.9
Texas	81	11,269.1	44	28	....	2,384.4	3,720.8
Utah	38	1,611.4	17	14	1	550.7	553.5
Vermont	16	810.7	9	4	....	316.5	337.2
Virginia	21	3,415.5	8	5	....	358.9	1,653.0
Washington	88	4,644.4	30	24	....	1,003.4	1,201.2
West Virginia	18	2,316.9	13	8	....	877.8	827.3
Wisconsin	41	3,478.8	18	10	....	660.0	1,583.1
Wyoming	15	555.7	9	7	....	259.8	317.5
District of Columbia	3	446.6	2	1	....	74.3	440.7
American Samoa	....	.....	....	....	....	.....	51.0
Guam	....	.....	....	....	....	.....	71.6
Puerto Rico	....	.....	....	....	....	.....	1,236.2
Trust Territories	1	102.2	1	....	....	.....	82.8
Virgin Islands	1	43.7	1	....	....	.....	58.3

1 Includes new projects and those operational projects preceded by planning grants which are tabulated as continuations in the grant award column.

2 Some projects approved late in FY 1966 did not have a grant award processed until FY 1967.

3 State allocations for FY 1966 which were not awarded during that year were available for award in FY 1967.

TITLE III, ESEA, PROJECTS SUBMITTED, APPROVED AND FUNDS AWARDED IN FISCAL YEAR 1967

	Projects Submitted		Number Approved 1/	Grant Awards		Total Funds Awarded	State Allocation 3/
	Number	Funds Requested		New	Continuations 2/		
TOTALS	1,767	$260,602.9*	934	1,099	507	$162,396.8*	$135,000.0*
Alabama	36	3,464.6	14	38	4	3,408.9	2,463.1
Alaska	3	353.8	3	2	3	394.9	377.3
Arizona	17	2,781.0	7	3	6	1,508.1	1,226.0
Arkansas	15	5,298.9	7	7	8	1,814.4	1,418.5
California	191	21,932.9	78	56	58	12,233.7	11,604.1
Colorado	23	1,495.6	18	12	10	1,696.7	1,447.8
Connecticut	22	4,029.8	17	14	8	2,475.2	1,937.8
Delaware	7	746.0	5	11	3	615.6	521.7
Florida	42	10,703.5	21	40	9	4,425.4	3,741.4
Georgia	23	4,341.6	11	17	9	3,629.9	3,028.9
Hawaii	...	.....	...	....	1	662.0	662.0
Idaho	13	1,162.6	6	8	5	685.3	655.4
Illinois	69	11,777.2	31	37	17	8,206.9	6,733.2
Indiana	30	4,950.8	15	17	18	4,122.3	3,305.2
Iowa	16	2,551.3	8	13	2	2,401.2	1,933.5
Kansas	22	3,752.5	9	10	8	1,800.0	1,613.2
Kentucky	14	2,103.8	7	11	8	2,961.0	2,215.5
Louisiana	16	2,990.0	11	14	7	3,133.4	2,551.9
Maine	23	2,969.7	13	10	5	1,046.7	816.6
Maryland	23	3,983.1	16	21	8	2,972.4	2,444.1
Massachusetts	81	6,920.6	43	46	16	4,353.2	3,453.1
Michigan	102	17,141.6	47	52	13	6,413.5	5,593.8
Minnesota	45	6,922.7	24	15	14	2,789.8	2,495.4
Mississippi	19	2,177.9	12	28	3	2,524.5	1,735.6
Missouri	61	10,110.2	21	22	7	3,463.6	2,955.9
Montana	18	1,852.8	8	9	9	790.3	657.3
Nebraska	7	900.8	5	2	8	1,115.1	1,113.1
Nevada	12	555.0	9	12	1	473.6	469.7
New Hampshire	8	770.8	7	4	7	702.3	617.6

*Amounts in Thousands.

TITLE III, ESEA, PROJECTS SUBMITTED, APPROVED AND FUNDS AWARDED IN FISCAL YEAR 1967—Continued

	Projects Submitted		Number Approved 1/	Grant Awards		Total Funds Awarded	State Allocation 3/
	Number	Funds Requested		New	Continuations 2/		
New Jersey	50	5,895.4	27	26	20	4,947.5	4,326.0
New Mexico	26	3,123.4	10	13	3	1,325.8	890.9
New York	116	24,983.2	45	42	29	12,234.9	11,005.5
North Carolina	36	5,594.9	23	57	10	4,654.7	3,362.1
North Dakota	11	794.6	8	4	6	818.6	625.6
Ohio	74	8,509.8	45	74	23	8,272.3	6,719.5
Oklahoma	29	4,211.1	17	18	6	2,026.4	1,702.6
Oregon	22	2,542.8	9	3	15	1,465.4	1,415.2
Pennsylvania	130	14,952.0	75	62	24	8,395.0	7,283.6
Rhode Island	22	1,789.6	9	14	4	964.4	738.2
South Carolina	16	1,831.4	12	36	5	2,646.8	1,886.5
South Dakota	4	499.1	4	6	3	1,088.2	644.7
Tennessee	8	3,358.2	6	39	3	3,852.0	2,619.7
Texas	69	16,651.9	45	44	22	8,334.7	7,003.0
Utah	19	2,406.1	8	3	9	880.2	877.4
Vermont	14	909.5	8	9	3	473.6	454.2
Virginia	31	6,778.9	22	41	4	4,258.1	2,990.4
Washington	39	5,178.8	24	13	15	2,266.3	2,072.6
West Virginia	9	1,208.9	7	11	8	1,284.8	1,351.1
Wisconsin	33	2,965.8	26	24	12	3,741.8	2,839.4
Wyoming	8	519.3	4	4	6	454.0	414.0
District of Columbia	11	701.2	9	11	1	1,027.3	661.7
Bureau of Indian Affairs	21	768.5	8	8	....	126.4	204.5
American Samoa	1	136.3	1	1	....	136.4	85.4
Guam	1	124.2	1	1	....	194.3	124.5
Puerto Rico	1	4,527.5	1	1	....	3,348.6	2,112.4
Trust Territories	1	122.8	1	2	....	204.5	140.7
Virgin Islands	1	134.9	1	1	1	154.0	98.0
Department of Defense	6	641.7	5	....	....	.....	527.3

1 Includes new projects and those operational projects preceded by planning grants which are tabulated as continuations in the grant award column.

2 Some projects approved late in FY 1966 did not have a grant award processed until FY 1967.

3 State Allocations for FY 1966 which were not awarded during that year were available for award in FY 1967.

TITLE III, ESEA, PROJECTS SUBMITTED, APPROVED AND FUNDS AWARDED IN FISCAL YEAR 1968

	Projects Submitted		Number Approved 1/	Grant Awards		Total Funds Awarded	State Allocation 3/
	Number	Funds Requested		New	Continuations 2/		
TOTALS	1,678	$215,472.9*	566	596	902	$181,955.6*	$187,876.0*
Alabama	34	3,882.1	14	17	12	3,343.4	3,424.5
Alaska	4	320.6	2	2	3	442.6	452.6
Arizona	11	831.6	3	7	6	1,617.7	1,661.9
Arkansas	6	704.6	3	1	10	1,896.2	1,936.2
California	180	22,408.4	57	65	68	15,585.5	16,499.1
Colorado	28	2,468.4	12	14	13	1,977.9	1,977.9
Connecticut	16	1,593.8	12	10	14	2,622.4	2,676.1
Delaware	6	901.1	3	...	10	644.2	658.4
Florida	54	6,742.8	27	29	14	4,871.7	5,245.9
Georgia	30	4,218.9	8	10	13	4,139.9	4,223.6
Hawaii	...	...	...	....	1	841.1	858.2
Idaho	12	766.1	2	3	6	830.6	848.9
Illinois	53	13,997.4	16	11	34	9,383.1	9,565.8
Indiana	39	6,123.0	10	10	20	4,551.0	4,624.4
Iowa	16	2,020.4	8	9	9	2,560.6	2,670.0
Kansas	26	2,690.8	10	8	10	2,169.3	2,213.6
Kentucky	13	1,926.1	6	6	9	3,008.1	3,071.8
Louisiana	33	3,943.7	17	11	15	3,472.6	3,551.1
Maine	16	873.2	11	12	10	1,056.6	1,078.5
Maryland	16	2,178.2	9	9	14	3,177.4	3,397.5
Massachusetts	80	10,010.6	33	26	37	4,735.6	4,835.2
Michigan	87	13,497.7	10	17	29	7,721	7,885.3
Minnesota	43	6,684.1	5	7	20	3,406.1	3,470.6
Mississippi	31	4,988.7	13	12	3	1,745.5	2,388.0
Missouri	24	4,751.4	13	9	21	4,126.7	4,126.7
Montana	19	1,210.0	7	5	13	811.1	851.7
Nebraska	9	902.2	5	8	5	1,471.0	1,501.0
Nevada	11	704.9	2	2	8	568.0	584.3

*Amounts in Thousands.

TITLE III, ESEA, PROJECTS SUBMITTED, APPROVED AND FUNDS AWARDED IN FISCAL YEAR 1968—Continued

	Projects Submitted		Number Approved 1/	Grant Awards		Total Funds Awarded	State Allocation 3/
	Number	Funds Requested		New	Continuations 2/		
New Hampshire	4	308.7	....	2	10	778.9	795.0
New Jersey	45	4,740.9	24	26	32	5,899.6	6,079.0
New Mexico	10	1,155.3	....	4	7	1,176.0	1,184.5
New York	106	11,969.0	42	53	54	15,200.8	15,596.2
North Carolina	67	8,676.1	25	20	19	4,528.3	4,705.5
North Dakota	8	669.4	1	2	7	790.2	806.4
Ohio	98	17,736.4	24	24	44	9,299.9	9,489.3
Oklahoma	15	4,150.4	4	5	15	2,274.1	2,341.0
Oregon	39	4,042.4	1	3	18	1,910.8	1,931.4
Pennsylvania	109	10,995.4	26	30	73	10,056.4	10,293.0
Rhode Island	13	670.3	6	5	11	947.6	966.8
South Carolina	22	2,687.1	11	11	9	2,366.5	2,603.0
South Dakota	1	37.2	....	....	5	813.0	833.7
Tennessee	20	3,434.4	6	8	7	3,502.2	3,647.7
Texas	67	9,025.1	21	16	59	9,534.5	9,893.2
Utah	5	377.2	....	....	14	1,165.2	1,165.2
Vermont	19	594.7	7	8	2	550.8	562.3
Virginia	31	4,618.1	14	14	20	4,137.4	4,175.9
Washington	27	1,506.2	5	10	18	2,806.3	2,868.1
West Virginia	8	658.7	4	4	10	1,758.7	1,840.1
Wisconsin	50	4,820.4	12	15	25	3,887.1	3,960.8
Wyoming	6	491.1	4	3	6	494.2	505.0
District of Columbia	2	116.0	2	5	3	840.6	857.8
Bureau of Indian Affairs	6	441.7	...	5	2	324.9	331.2
American Samoa	...	.....	....	....	1	144.4	144.4
Guam	1	143.2	1	1	1	202.8	206.9
Puerto Rico	...	.....	....	....	1	3,464.1	3,464.1
Trust Territories	1	48.3	1	1	1	230.5	235.2
Virgin Islands	1	18.4	1	1	1	93.5	164.5

1 Includes new projects and those operational projects preceded by planning grants which are tabulated as continuations in the grant award column.

2 Some projects approved late in FY 1967 did not have a grant award processed until FY 1968.